

INDIAN MINES ACT, 1923

ANNUAL REPORT

OF THE

CHIEF INSPECTOR OF MINES IN INDIA

FOR THE YEAR ENDING

31st DECEMBER 1937

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FROST

W KIRBY, Eaq, B Sc, M I Mm. E, Chief Inspecton of Mines in India

To

THE SECRETARY TO THE GOVERNMENT OF INDIA DEPARTMENT OF LABOUR,

SIMLA

Dated Dhanbad, the 30th May 1938

SIR,

I have the honour to submit the report upon the inspection of mines in British India for the year ending 31st December 1937

INTRODUCTION

The separation of Burma from India took effect from 1st April 1937, and no statistics for Burma have been included in this report

The Indian Mines Act, 1923, applies to British India only and not to the Indian States For the complete figures of production of all minerals raised from excavations of all depths in British India and the Indian States reference may be made to the statements of the 'Mineral Production of India 'Published annually in the records of the Geological Survey of India and to the "Quinquennial Review of the Mineral production of India" published every five years by the same Department Detailed information of the mineral industries in Mysore—where the Kolar gold field is situated—and Hyderahad (Nixam's Dominions) is given in the annual reports of the Chief Inspector of Mines in those States.

SECTION I .- PERSONS EMPLOYED.

During the year 1937 the daily average number of persons working in and about the mines regulated by the Indian Sines Act was 267,858, as compared with 269,593 in the previous year The decrease was 1,735 persons or 0.64

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FROM

W KIRBY, Eeq. B Sc. M I Min. E, CHIEF INSPECTOR OF MINES IN INDIA

Tο

THE SECRETARY TO THE GOVERNMENT OF INDIA DEPARTMENT OF LABOUR,

SIMLA

Dated Dhanbad, the 30th May 1938

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per cent. Of these persons 122,807 worked underground, 72,747 in open workings and 72,304 on the surface. The numbers of men and women, respectively, who worked underground, in open workings and on the surface were as follows:—

		Mon,		Women.
	1937.	1936.	1937.	1936.
Underground	. 118,920	123,423-	3,887	7,301
In open workings .	. 48,268	52,122	24,479	17,071
Surface	. 52,387	51,413	19,917	18,263
Total	. 219,575	226,958	48,283	42,635

The number of women employed underground was 3,887, or 3.17 per cent. of the total number of men and women employed underground. The percentage of women employed underground in coal mines was 3.79, as compared with 6.87 per cent. in 1936, 8.99 per cent. in 1935, 10.94 per cent. in 1934 and 13.14 per cent. in 1933. The provincial distribution of the women who worked underground was as follows:—

Number of women employed underground.

	Prov	ince.					In ooal mines.	In salt mines.	Total.
Bengal	•		•		•		1,352	• •	1,352
Bihar					٠	•	2,185	••	2,185
Central I	rovii	1005	•		•		335	••	335
Orissa		•					••	• •	••
Punjab			•				••	15	15
-				T	otal		3,872	15	3,887 in 1937,

as compared with 7,30I in 1936.

The daily average number of persons employed in coal mines was 171,149, which is 8,232 more than the number employed in 1936. Of these persons 46,192 were males employed in cutting coal, 24,356 were males employed as loaders of coal and 22,887 were women.

The increase in the daily average number of persons employed in coal mines in 1937, as compared with 1936, is reflected in the larger quantity of coal produced.

Annual returns are now received of the number of persons actually at work and also of persons who should ordinarily have been at work but were absent on a selected day in February of each year. The returns relate only to coal mines. The day to which the returns apply must be the day of a

week selected by the Chief Inspector in which there is the largest turn out of workers. For February 1938 the week selected by me was as follows -

Bengal Bihar and Orissa 13th to 19th

Assam Baluchistan the Central Provinces and the Panjab (th to 12th

Although these returns are for a day in 1938, they are included in this report as they would be more than a year out of date if held over till the submission of the report for the year in which they are mide

The returns for 1938 show that on the day selected 266 571 persons were either at work or were prevented from attending work. Thus figure is 95 4.23 more than the average number of persons employed in coal mines during 1937. Three of the important district comparisons are as follows—

	Averago dady attendas ce	Attendance on relected day (absenters included)	Lucess over average daily attendance	Lercentag excess
Jim a Coali el l	71 -00	115 1	41 217	uu v4
I anigai j Crali ekt	57 813	87 653	23 846	SI 6)
Central Provinces Coalfiold	11 918	16 360	4 117	37 3

Some of the percentages of absentees are as follows—All names from the returns were received 82 Jhurn 30 Ranging 79 and the Central Provinces 77 It is probable that the reason for the low percentage of absentees in the Jhara coalfield is that a larger proportion of the about force is resident at or near the mines than in the oth a new A detailed statement compiled from the returns is given in Appendix I Jable No 1 A. It may be noticed that the percentage of excess of below on the selected day in Lebrary over the average oddly standame in the Jhara coalfield has microsed from 12 18 to 55 54 and in the Ringing coalfield from 12 98 to 51 60 while in the Central Provinces it has mere sed from 26 88 to 37 35. The output of coal in the Jhara coalfield during what month increased by 27 per cente and the difference in proportion for the increase of bloour may be attributed to two reasons—

(1) the removal of overburden in the process of forming extrasive quairies during which period no coal was raised, and (2) to the recurst is opening of collieries. A typical example, in the former case is one, in which the labour colliers in the typical example, in the former case is one, in which it is said colliers increased to 2,501, and in the latter case at a collier which was reopened the labour employed this year at the said of the colliers in the Rainganj field the increase in the percentage of labour is in I ceping with the increased output of coal during that month is order at the Central Provinces coefficied it should be pointed out that Tel rury is probably the busiest month of the year is the month in which labour is most plentiful and that the figures for everage daily attend use do not include absentees

Figures showing the average output of coal per person employed are given below:—

Tons of coal per person employed.

							Undergro open	und and in workings.		and below ound.
							1937.	1935-36.	1937.	1935-36.
British Ind	lia	•	•	•			189	182	131	129
Bengal and	Bi	har	•	•	•		192	186	132	131
Assam					•		169	150	117	105
Baluchista	1						42	41	41	41
Contral Pro	rino	es	•				175	163	126	117
Orissa	•	•	•		•		198	203	146	151
Punjab				•	•	•	110	113	69	74

There was a general increase in the average output of coal per person employed except in Baluchistan and Orissa. In comparing the figures with similar figures in other countries it should be remembered that both men and women are employed in Indian coal mines. In 1936 the output of coal per person employed above and below ground in the United Kingdom was 298 tons. In the same year, i. e., 1936 comparative figures in certain other countries were Japan 207 tons; France 210 tons; Germany 311 tons; and the United States of America 671 tons.

The number of persons employed in metalliferous (including mica, stone, clay and salt) mines was 96,709 which is 9,967 less than the number employed in 1936. 71,313 were men and 25.396 were women. Of the women 15 worked underground in salt mines.

Bengal, Bihar and Orissa.—At the beginning of the year there was a shortage of labour on account of the good harvest season. Many colliery owners were compelled to transport the miners from their villages in buses in order to obtain the necessary labour. Wages were increased by as much as 25 per cent. at some collieries, necessitated by the elimination of female labour from the underground workings of mines on 1st October. Towards the end of the year the supply of labour was ample. The relations on the whole between employers and labour continued to be good. At one colliery there was a partial strike for increased rates which lasted for three days.

The general health of the mining population in the Jharia and Raniganj coalfields was on the whole satisfactory. The death rate per thousand persons was lower both in the Raniganj and Jharia Mining Settlements. Details of the activities of the Mincs Board of Health in the Raniganj and Jharia coalfields are given in Section V of this report, from which it will be seen that the work of both the Boards is being satisfactorily maintained.

In the iron ore mines of Singhbhum district there was no shortage of labour during the year. There was a further increase in the miners' wages,

due to an increase in the rates and an increase in the output per bead Apart from a minor strike which lasted one day there was no further labour trouble

At the copper mines worked by the Indian Copper Corporation Limited in the Singhbhum district, there was nn ample supply of labour A lightning strike for three days occurred in April at the smelter Libour unrest was a conspicuous leature during the year but it abated towards the end of the year. There was no outbreak of epidemic disease

At the mica mines of Chota Nagpur there was an insufficient supply of labour Most of the labour was attracted to dump work by the high rates offect There was no epidemic or strike during the year.

Assam —There was a sufficient supply of labour and there were no strikes or epidemics. The use of water proofed safety helmets was continued and two hundred helmets were supplied free of cost to the miners during the year.

Central Provinces —In the Pench Valley coalfield there was a shortage of labour on occasions and particularly in the months of October and Novem ber following the elimination of females from the underground workings of mines there was a slight increase in the rate of wages. The prices of food stuffs remained much about the same. The relations between the employers and labour were good. On the whole the general health of the labourers was good.

At the manganese mines in the Central Paovinces there was a heavy demand for ore during the middle part of the year and the opening of a large number of small mines resulted in a large demand for labour and or general tendency for wages to use. There were no strikes or labour disputes There was an epidemic of cholera at one mine resulting in 73 attacks and 25 deaths. There were no other outbreaks of epidemic disease.

Punjab—There was no change in the labour conditions the supply exceeding the demand. There was no epidemio and the health of the labourers remained satisfactory. A lady doctor and a Santary Inspector were employed to supervise the welfare of the labourers and improve sanitary conditions. The rainfall was again below the average but there was no shortage of water during the year.

Madras—There was a plentiful supply of labour at the muca mines dumand for mice. The relations between employers and labour were good

In the table on page 6 figures are given of the average daily wages paid in December in each important mining field in India II the figures are compared with those in last year 8 Annual Report it will be seen that there was a general increase in the wages paid to underground miners in all the coalfields There were also small increases in wages paid to other classes of labour in practically all the coalfields

Average daily earnings in December 1937.

					,						•					
			UNDERGROUND	ourb.					OPEN W	OPEN WORKINGS.		-		SURFACE	CE.	1
Mineral Field.	Overmen and Sirdars M Foremen and Mates.	Lioera. 1	Moers. Loaders.	Skilled Labour.	Un- skilled Labour.	Females.	Overmen and Sludars Foremen and Mates.	Miners.	Loaders.	Skilled Labour.	Un- skilled Labour.	Females.	Clerical and Supervis- fog Struft.	Skilled Labour.	Un- skilled Labour.	Females
	R a. p. R	a. p.	n a. p.	п а. р.	R a. p.	п а. р.	п а. р.	п а.р.	- d	6			1		- 1	
harla Coalfield (Bihar)	1 2 3	:: ::	0 %	0 10 3	0 1.	:	0 11 6		6	. rs	9	i "	1 . v.	4 4. p.	# 0	я д. р.
tanganj Coalfield (Bengal).	1 0 0	6	0 7 0	9 G O	0 %	:	0 11 3	0 %	9 9 0	: :- 0	. o	° +	0 15 9	0		• -
Siridib Coalfield	0 7 71	2	0 0 0	0 13 6	c; (,	:	:	:	;	1-			;			,
Assam Coalfield	1 4 6 1	1 0	1 0 0	:1 :1	0 13 6	;	1 0 0	0 15	10	-	:	-	J.:	er er		₹: • • • • • • • • • • • • • • • • • • •
Punjab Coalfield .	1 1 6 0	15 9	0 14 0	0 12 6	:: :- 0	:			2	:	: ,	:	o 0	0 14 0	0 11 0	0 1 0
Baluchistan Coalfield .	1 0 0 0	10 3	0 10 6	0 12 9	0 1, 0	_			:	:		:	0 1.5 9	0 11 0	9 - 0	÷ :: 0
Pench Valley Coalfield (Central Provinces),	0 6 7 1	11 9	6 1,	0 10 6	t-	: :	0 12 0	: c	: 13 0	: 6	: 15	: :		11 9	æ	:
Blhar Mea	9 6 0	1.		((,				1		- -	:: ::	<u>)</u> ဗ	e e
Madras Mica	c.	. ;:	: :	- 4	7 T	:	တ ဒ	ו כו	;	ε · · · · ·	:: ÷ 0	:1 0	0 13 9	0 10	0 2 3 0	0
Contral Provinces Man-	:	0	:	, e	. 10	: :	9 6	0 0	:	÷ :	က က		0 11 3	0 2 0	0 1 0	3 6
Central Provinces Lime-								>	:	- -	0	e: →	0 H H	0 10 6	0 3 3 0	3 6
stone.		:	:	:	:	:	ຕ ດ ດ	၀ ၁	:	a 9 0	e + 0	0 61	0 5 3	0 5 3	0 3 0	e:
Punjab Salt	: ::	: :	:	: .	: ,	:	0 14 0	0 10 0	:	0 10 3	0 53	0 3 0	ب در 0	0 13 0	; 4	c
Blue China		>	:	> - 	9 P	:	:	;	:	:	:	:	0 13 9	0		
Cinat Cinat Clay.	C S O	0	:	:	က n o	:	0 2 0	e e 0	:	0 0	9 0	0 10 9	1 3	0 0 0	- c	•
Funjab Slate	:	:	:	:	:	:	0 8 0	9 9 0	:	0 13	;; ÷		2	· · · · · · · · · · · · · · · · · · ·		1
United Provinces Stone	:	:	:	:	:	:	5 7 0	0 1-		2		:	2	4	 o o	:
							١	.	:	0 0	0 + 0	ຕ ຕ	0 11 3	0 3 0	0 11 0 0	0

Section II .- Output of Minerals

COAL

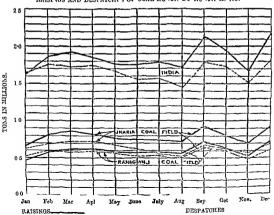
Output —The statement given below shows the output of coal in the various provinces in British India during the years 1936 and 1937

Output in tons

							1937	1930
Assam Baluchistan Bengal Bibar Central Prov Orissa Punjab	nces	:	:	•	: :	:	243,650 10,621 6 527,820 13,635 516 1,504 159 47,127 160,632	201 503 3,451 6,667,841 12 015,205 1,507,932 31 061 150,849
					Total		22,335,528	20,583 982

The total output in 1937 was 22,335,528 tons of a declared value of Rs 6,98,79,139. The increase in the output was 1,751,646 tons, e.e., 851 per cent and the increase in the value Rs 1,38,94,100, e.e., 2482 per cent. The opening stocks in 1937 were 896,723 tons and the closing stocks 821,021 tons. In the charts which appear below the russings and despatches of coal are shown month by month.—

RAISINGS AND DESPATCHES OF COAL MONTH BY MONTH IN 1937



It will be seen from the chart that, as usual, the output was highest in the first three months of the year. The fall of output in November was greater than usual due to a plentiful harvest.

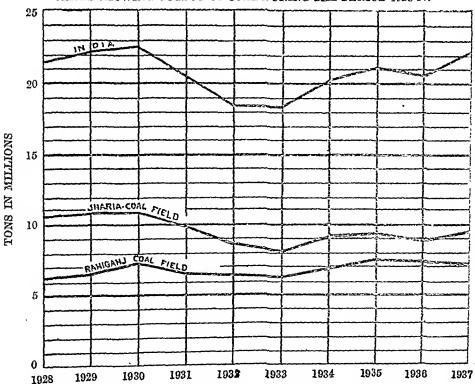
The output in Bihar increased by 1,820,311 tons; there was an increase of 16,066 tons in the Province of Orissa; and in Bengal there was a decrease of 140,021 tons. In the Central Provinces the output decreased from 1,507,982 tons to 1,504,159 tons. There were increases of 9,783 tons in the Punjab, and 7,173 tons in Baluchistan. There was an increase of 42,057 tons in Assam.

The figures of output for the principal coalfields are as follows :-

Cos	lfi	eld.		1937.	1936.	Percentage increase + or decrease —
Jharia				9,601,230	8,830,144	+8.73
Raniganj				7,196,324	7,305,437	~1.49
Bokaro				2,309,170	1,417,227	+62.93
Giridih				674,794	698,133	-3.34
Karanpura			•	534,328	396,083	+34.90
Ponch Vall	oу			1,234,233	1,259,133	-1.98
Assam	•	•	•	243,650	201,593	+20.86

The output of the Jharia coalfield increased by about $8\frac{\pi}{4}$ per cent., the Raniganj coalfield decreased by about $1\frac{\pi}{2}$ per cent., the Karanpura coalfield increased by about 35 per cent., and the output of the Assam coalfield by more than 20 per cent. There was a decrease in the Pench Valley coalfield of the Central Provinces of 2 per cent. and in the Bokaro coalfield an increase of 63 per cent. In the Giridhi coalfield the output fell by $3\frac{\pi}{3}$ per cent. The accompanying chart shows the variation of the output of coal during the period 1928-1937.

CHART SHOWING OUTPUT OF COAL DURING THE PERIOD 1928-37.



Despatches—The despatches of cord were 19 942,554 tons and 1,192,793 tons, or 5 34 per cent of the rawings were consumed on the collieres. The quantity of cord used for colong at the collieres was 1,272,883 tons, and 837,145 tons of soft coke and 93,439 tons of hard cole were made. There was a decreases • e, 8 7 per cent in the quantity of soft coke manufactured at the collieries is mail. Most of the hard coke is made at coke making plants which do not come under the Mines. Act, and 1,928,752 tons of coal were despatched to coke making plants of this land in 1937. This quantity is 93,755 tons more than in 1936. Analyses of the figures relating to the output of coal and the manufacture of coke will be found in Appendix I, Table No. 3.

The despatches of coal for the year were more than those for 1936 hy 1,719,420 tons. The stocks of coal at the collectes at the end of the year were less than at the heguning

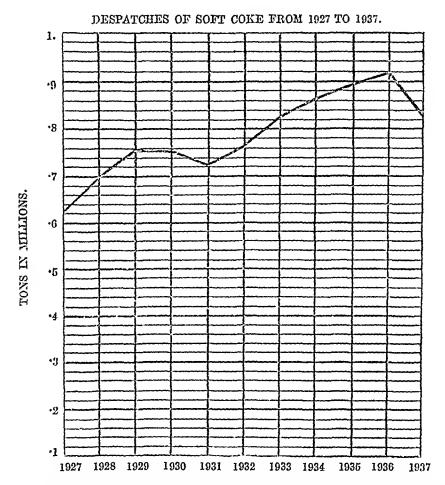
The following figures giving the average value per ton of coal put into wagons in various districts may be of interest —Assum, R.8 8 annas 2.3; Baluchistay, R.8 5 annas 8.3, R.8 5 annas 8.3, Bihari (Jhana coalfield), R.8 3 annas 8.6, Central Provinces, R.8 3 annas 8.3, and the Punjah, R.8 5 annas 2.5 There were increases in the average per ton of coal in Baluchistan, Bengal, Bihar and the Punjab of annas 13.4, annas 11.5, annas 4.2 and Re 1 annas 3.7, respectively. In Assum and the Central Provinces there were decreases of Re 1 annas 4.2 and annas 1.4, respectively

Trade Conditions —The demand for coal was good throughout the year From April until the end of the year prices increased while the supply of coal could not meet the demand Laquiries from overseas could not be met and the outlook, until December, was excellent, when the market was elightly weaker, but with forward commitments made at favourable prices for most classes of coal The contract for the Ceylon Government Railway was retained by the Indian coal owners

The Soft Coke Cess Committee continued as on previous years to carry

The question of improving the quality of soft cole is still encounted attention of the Committee During the year the prices of soft relevery high due to a shortage of roal and ooks and despatches were affected. Approximately 830,784 tons of soft cole were demanded to the coalledies in the year 1937, as compared with 915,713 tons despited on the output for 1937, 786,127 tons were demanded.

in the Jharia coalfield. The accompanying graph shows the development of the soft coke industry during the last ten years.



Use of Electricity both at Coal Mines and at other mines.—The number of coal mines using electrical energy was 124, the same as in 1936, but the aggregate horse power employed at coal mines increased from 84,168 to 86,804, i. e., by 3.1 per cent. The increase is due to the increased horse power of motors installed chiefly in the Jharia, Raniganj and Central Provinces coalfields. During the coal electrical plant was installed and brought into operation in three coal mines. Of mine three were closed.

Electric	ity was used at 2	mir 🗻	°1 mines in
1936, and 8	the aggregate hc	Wθ	· i 13,479
in the,	r year, show .	~t y	t.
St.	electrical	, ·	v'nces
of E	in eerta	Ĺ	I,
Tabl	٦,		

Explosuce—During the year 2.751,418 lb of gunpowder, 61,840 lb of hunes rhose s, and 220 519 lb of 'permitted explosive see were used at coal nines. These figures compare with 2,181,106 lb of gunpowder 45,237 lb of high explosives and 95 078 lb of 'permitted' explosives used in 1336. In addition 112 881 lb of highed oxygen explosives were used. These explosives were used in quarries in the Bokuro colfield. A statement of the kind and quantity of explosives used during the year in the different kinds of mines under the Act is given in Appendix I, Table No 12.

An appendix has been added giving a list of "permitted' explosives and

a list of approved types of shot firing appartus

Coal Cutting Machines —The number of coal-cutting machines in use was 10-36 all the machines were worked by electricity 46 machines were at work in Jharn coalfield 78 machines in the Ranganj coalfield, 5 in Karanpura coalfield 1 in Giridih coalfield, 1 in Bokaro coalfield and 9 in the Central Provinces There has been an increase of eight machines in the Jharn coalfield and of fifteen machines in the Ranganj coalfield Coal cutting machines were in use in 50 mines as against 30 mines in 1936, the total aria miderate was 46 500 160 square feet, as compared with 5 357,389 square feet underent in 1936 There has thus been a considerable increase in the output obtained in many mines from the use of machines. The re introduction of coal cutting machines during the year in some of the mines from which they were withdrawn during the year in some of the mines from which they were withdrawn during the depression period is due partly to the increased price of coal and partly to shortage of thour in mines

Electricity R iles —New Rules known as Indian Electricity Rules, 1937, were brought into force during the year. The new rules contained many additions to the Indian Electricity Rides 1922, since superseded. The existing installations are being brought into conformity with the requirements of

the new rules

Strevisors Examinations—During the year the Government of Bengal brought into force Rule 48 of the Indian Flectnerty Rules 1937 in the sub division of Assasol and now requires that no electrical installation work in cluding additions, alterations and repairs to existing installations shall be carried out in mines except under the direct supervision of a person bolding a certificate of competency issued by it. The Bengal Government appointed a Lucensing Board for the purpose of issuing Supervisors' Certificates of Competency qualified persons and framed regulations for the purpose. Framinations for Supervisors Certificates of Competency were held in Calcutta and at Dhanbal and several persons employed in mines have received certificates by examination. Also many Lagineers in responsible positions in mines have been granted certificates in consideration of their experience and qualifications.

Mechanical Ventilators —In Appendix I Table No. 10, particulars are given of the number of mechanical ventilators in use in coal mines under the Act. In 1937, 117 mechanical ventilators were in use, the number being 104 in the previous year

Sefety Lamps —In Appendry I Table No 11 particulars are given of the number of safety lamps in use in coal mines under the Act 42,932 safety lamps were in use in 1937, as compared with 33 051 in 1936

Inon One.

The production of iron ore was 1,587,362 tons, valued at Rs. 27.3060.5 compared with 1,401,530 tons, valued at Rs. 22,84,834 in 1936.

Manganese Ore.

There was an increase of 175,450 tons in the output of manganese on f figures of production being 800,280 tons, valued at Rs. 1,21,06,503, as to pared with 624,830 tons, valued at Rs. 49,62,272 in 1936. The avect reported value per ton of manganese ore produced rose from Rs. 794 in E" to Rs. 15:13 in 1937. The corresponding value in 1935 was 952. The Central Provinces Manganese Ore Company, Limited, despatched a total of 751,367 tons as follows: - 276,021 tons to Calcutta; 311,748 tons to Ving patam; 43,831 tons to Bombay; and 92,761 tons of other sales on fier basis. The quantity despatched by the company in 1936 was 490.050 tors that the despatches in 1937 were greatly in excess of those in 1936. It average f. o. b. price realised in 1937 was 8:28 annas per unit. It is L." than the figures of the previous year. There was a strong demand for or all but very low grades from March 1937 until October 1937, when deand slackened comewhat due partly to high steamer freights and partly to be having satisfied their requirements.

GOLD.

The output of gold in 1937 was 26 ounces which was obtained from the Manbhum district of Bihar.

CHROMITE ORE,

The production of chromite ore was 35,387 tons, valued at Rs. 5,1845 as compared with 28,142 tons, valued at Rs. 3,91,401.

COPPER ORE.

The output of copper ore was 371,458 tons, valued at Rs. 48,69,790, 65 compared with 357.194 tons, valued at Rs. 40,03,200 in 1936. The whole of the production correct. the production came from the mines belonging to the Indian Copper Corporation. Limited in the Corporation of refined tion, Limited, in the Singhhlum district of Bihar. The production of refined copper amounted to 6,830 tons, as compared with 7,200 tons in 1936. The production of valley production of vellow metal sheet and circles at the rolling mills was 10,019 tons, involving the tons, involving the use of 6,422 tons of copper. Development of the Most boni and Dhohani minutes. boni and Dhobani mines is proceeding in depth.

The quantity of mica consigned was 94,811 cwt., valued at Rs. 39,16,718, compared with 82,077 as compared with 82.077 cwt., valued at Rs. 32.33,396 in 1936. The output of dressed mice in 1927. of dressed mica in 1937 was 103,641 cwt., as compared with 86,501 cwt., in 1936 In addition, 24,407 cwt of waste mice fit for splittings valued at Rs 91,737 were consigned from Nellore district. Madras Presidency and 664 cwt, valued at Rs 210 from Ajmer Merwara district in Rajputana. The output of this kind of mice was 28,863 cwt.

The quantities of mica and splittings shipped in 1936 and 1937 are as follows --

				Cwt.	Re
1936	•		•	99 491	72,57 054
1937				131 425	1 16,73 944

In addition 120,191 cwt of "pattern cut" and scrap mica having a vide of Rs 9 63 873 were shipped as compared with 58,250 cwt valued at Rs 8.45-219

ROCK-SALT

The production of rock salt was 163,813 tons, as compared with 151,523 tons in the previous year

LIMESTONE.

The reported production of limestone was 1 318 598 tons valued at Rs 13 88,408, as compared with 1 007 957 tons, valued at Rs 11 01,005 in 1936

STONE

Returns were submitted by the owners of one hundred and nine stone mines, and the figures or production were as follows —1 205,756 tons of igneous rock, 30,414 tons of sandstone 39 934 tons of gravel and 30 505 tons of murrum The total production was 1 315 569 tons, as compared with 1,338,160 tons in 1936

CLAYS

From the twenty six clay mines from which figures were obtained 33 332 tons of fire clay, 11,024 tons of chira clay and 89,058 tons of ordinary clay were produced

OTHER MINERALS

The production of other numerals were as follows—15 150 tons of bartet, valued at Rs 61,839 7,446 tons of slate, valued at Rs 1,30 835 23,782 tons of magnesite valued at Rs 1,40,708, 13 932 tons of gypsum, valued at Rs 36,418, 7 591 tons of barytes valued at Rs 70 635, 2 551 tons of steatite, valued at Rs 1490 112 tons of ochre, valued at Rs 903, 288 tons of felspar, valued at Rs 1867, 166 tons of apatite valued at Rs 1,660 181 tons of baoline valued at Rs 543, and 805 tons of kyamite, valued at Rs 12 075 Small quantities of asbestos beryl, graphite, fuller s earth, muscovite and tantalite were also produced

SECTION III .- ACCIDENTS.

During the year 1937 at mines regulated by the Indian Mines Act, 1923, there were 208 fatal accidents which is 6 less than in 1936, and 28 more than the average number in the preceding five years.

In addition to the fatal accidents there were 1.085 serious accidents involving injuries to 1.115 persons, as compared with 978 serious accidents involving injuries to 1.011 persons in the previous year. The so-called "terious" accidents reported are those in which an injury has been sustained which involves, or in all probability will involve, the permanent loss of or injury to the sight or hearing or the fracture of any limb or the enforced absence of the injured person from work for a period exceeding twenty days. Two lundred and forty-eight persons were killed and 1,156 persons were ceriously injured. The latter figure includes 41 persons injured in fatal accidents. The number of persons killed was 229 less than in 1936. 228 persons killed were men and 20 were women. In one case 9 lives; in eight cases 3 lives and in fifteen cases 2 lives were lost.

The proportion of accidents which occurred to men and women, respectively, underground, in open workings, and on the surface were as follows:—

	No. of fatal acci- dents.	men	No. of women killed.	· pe	th rate 1,000 room ployed.	No. of cerious acci- dents.	No. of men injured.	No. of women injured.	per	us injury rato r 1,000 rsons iployed.
				Meu.	Women.				Men.	Women.
Underground .	169	189	10	1.59	2.57	S15	825	15	6.94	3.86
Open workings.	25	29	G	0.60	0.25	66	54	17	1-12	0.69
Surface	14	10	4	0.19	0-20	201	186	18	3.55	0.90

There was a decrease in the death rate of men employed underground, in open workings and on the surface. With respect to women there was a decrease in the death-rate underground and an increase in open workings and on the surface. The causes of the fatal accidents have been classified as follows:—

-					No. of fatal accidents.	Percentage of total number of fatal accidents.
Misadventure					136	65:39
Fault of deceased					29	13.94
Fault of fellow workmen .					9	4:33
Fault of subordinate officials					17	8.17
Fault of management			•		16	7.69
Faulty material	•	•	•	•	1	0.48
•		T	otal		208	100.00

There was a decrease of 229 in the number of persons killed during 1937, as compared with 1936

I have unalysed scrious accidents and find that out of the total of 1,156 per ons scrious's injured 87 were permanently partially divibled and 1,069 were only temporarily disabled

In addition it was reported that 3 911 persons received minor injuries which necessitated the enforced absence from work for a period exceeding forty eight hours

Fire-damp — There were two fatal accidents by explosious or ignitions of fire damp involving the death of 2 persons

Falls of roof and side —Falls of roof and sides caused 116 futal accidents and 190 serious accidents. As compared with the figures under this head in the previous year the total number of accidents decreased from 378 to 306, the number of persons killed increased from 141 to 148, and the number of persons scriously injured decreased from 266 to 205. In one case three lives, while in another case two lives were lost in depullant, areas, also in two cases three lives and in nine cases two lives were lost in galleries by fulls of roof. The accidents by fulls of sides include one in which nine persons were billed in open workings.

In Shafts —There were 10 fatal accidents and 32 serious accidents in shafts, as compared with 7 fatal accidents and 21 serious accidents in the previous year.

Suffocation by gases —There was one fatal accident due to suffocation by gases, involving the death of two persons

Explosives —There were 13 fairl accidents and 31 serious accidents caused by explosives. In the previous year the figures were 11 and 24 respectively.

Hauloge—There were 32 fatal accidents and 218 serious accidents on haulage roads. The accidents due to haulage have been classified as

follows -

Classification	Patal	Serious	Total
Haulage rope breaking	6	3	9
0 110 1		1	1
	1		1
	2	5	7
		2	2
	2	2	4
	7	91	28
•	3	57	60
	•	8	8
	*.		
	6	J.S	61
		12	12
go	2	20	27
Crushed against tubs sides of roadways doors, ato	1	8	9
While spragging moving tubs .	1	7	8
Unclassified .	î	12	15
Onchastined			
Total	32	218	250

There was an increase in the number of accidents due to breakdown in materials, there being 11 in 1937, as compared with 6 in 1936. Of the 11, 9 were due to the breakage of haulage ropes. The prolonged use of haulage ropes showing signs of extensive deterioration is to be deprecated.

The number of accidents due to unauthorised persons riding on sets was 4 in 1937, as compared with 9 in 1936. Although there is a marked improvement, stricter supervision by the subordinate underground staff and disciplinary action by managers are necessary.

There was a considerable increase in the number of accidents resulting from tubs being allowed to run uncontrolled, there being 28 in 1937, as compared with 5 in 1936. Attention is drawn to the necessity of supplying a sufficient number of suitable sprags on the loading lines and on the insistence for their regular use. Stop-blocks and catches provided at suitable points on translines having variable gradients would reduce this class of accident.

There was an increase in the number of aecidents while tubs were being hand transmed, there being 60 in 1937, as compared with 45 in 1936. There was also an increase in the number of accidents following derailments or while re-railing tubs, there being 61 in 1937, as compared with 26 in 1936. Accidents by these causes are generally due to ignorance or earelessness of the persons involved. In re-railing tubs suitable poles should be used as levers to guard against the danger of tubs capsizing on the persons engaged in re-railing the tubs.

The number of accidents to persons resting or loitering about haulage roads or trainming levels has increased from 23 in 1936 to 27 in 1937. Attention of owners, agents and managers is drawn to my Circular No. 4 of 1931, in the hope that the recommendations contained therein will be more rigidly enforced.

The number of accidents due to persons being crushed against tubs, sides of roadways, doors, etc., has been reduced from 25 in 1936 to 9 in 1937. A little more care on the part of those involved would reduce this class of accident.

Underground Machinery.—One fatal and nine serious accidents were caused by underground machinery.

Sundries Underground.—Nineteen fatal aecidents and 404 serious accidents were due to miscellaneous causes underground.

Surface Machinery.—One fatal accident and 14 serious accidents were caused by surface machinery.

Surface Railways and Tramways.—Eight fatal accidents and 110 serious accidents took place on surface railways and tramways.

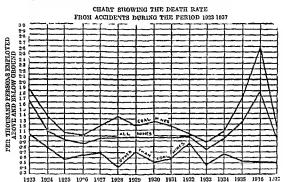
Electricity.—There were 2 serious and 2 fatal accidents attributable to the use of electricity.

Miscellaneous on the surface.—Three fatal accidents and 75 serious accidents of this kind took place on the surface.

Accidents excluded from the statistics—Twenty four accidents causing 21 deaths were excluded from the statistics for reasons which are given in Appendix II

Death rates —The death rate per thousand persons employed above and below ground was 0.93 which was less than the rates in 1935 and 1936. The average rate for the preceding five years was 1.13. At each immes the rate was 1.17, as compared with 2.68 in 1936. At mines other than coal mines the rate was 0.50, as compared with 0.51 in 1936.

The chart below shows graphically the variation in the death rate during the period $1923\ 37$



From the above it will be seen that the death rate has fallen considerably The high rate in 1936 was due chiefly to an explosion in a coal mine which caused the loss of 209 lives

The death rate per million tons rused at coal mines was 8 95 while that of the preceding five years was 11 12

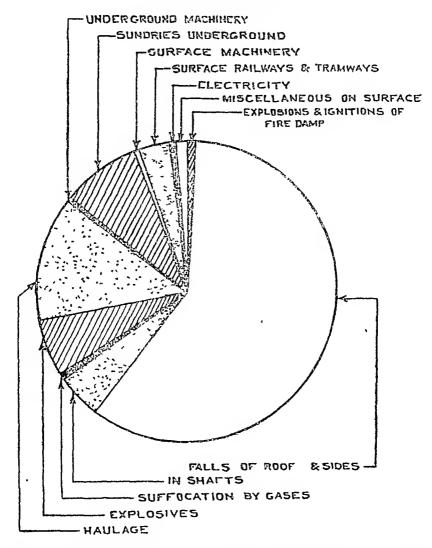
Deaths occurring in each class of mines were as follows —200 in coal mines, 2 in iron ore mines, 12 in inca mines 11 in limestone mines 4 in stone mines, 8 in copper mines 1 in a chromate ore mine, 4 in salt mines, 1 in a magnesite mine and 5 in manganeso mines

Two person lost their lives due to explosions and ignitions of fire damp, 78 persons lost their lives by falls of roof, 70 by falls of sides 12 in shafts, 2 by suffocation by gases, 15 by explosives 33 by haulage, 22 by other accidents underground, 2 by electricity and 12 on the surface

The accompanying chart shows the relative importance of the various cases of accidents in coal mines during 1937.

CHART SHOWING

DISTRIBUTION OF CAUSES OF PERSONS KILLED IN AND ABOUT COAL MINES IN THE YEAR 1937.



A list of the fatal accidents appears in Appendix II, Table I, where each is briefly described. The details of certain accidents are reported at greater length as follows:—

FALLS OF ROOF.

No. 63.—The Budroochuck Coal Mining Company, Limited's Budroochuck coal mine.

(Three persons killed and one injured.)

This accident occurred on a main dip haulage road in a development district of No. 14 seam which is 25 feet thick. The haulage 10ad passes

through a series of full's and at place of accident it was against the roof and had been made 6 feet in height Plan No 1 shows the place of accident

The deceased and their companions were engaged in driving dip and rise galleries off the bottom level of the brulage road. At the end of their relay they were proceeding outby and just as they a relied the piece of accident the mass of roof as indicated on the plan fell without any wirming. The two assistant overmen in charge of the distinct stated that the roof that fell had been tested regularly and the last evamination was unde two hours before the accident when the roof appeared to be sound. The roof of No. 14 secum in this particular articlars are a sometimely and on the rise and dip sides of place of occurrence supports had been set because of the unsound roof.

In spite of the fact that the roof at place of accident was considered to be sound in view of the bid roof on the rise and dip sides it is considered that supports should have been set at the junction of the gilleries as precrutionary measure. The management agreed to imper systematically the junction of all gilleries in this area where the roof was disturbed and bledy to be unsound with a view to preventing a recurrence of this type of accident.

FALL OF SIDE

No 45 —The Dyers Stone Lime Company, Limited's Salavya Paharhai Lamestone mine

(Nine persons killed)

This accident occurred in a limestone quarry, 220 feet long and 100 feet wide. Plan No. 2 will indicate conditions before and after the accident

The quarry was a comparatively new one as it was opened in June 1936. The following description of the accident is given by Dr. D. Penman who caquired into the accident.—

"The actual limestone deposit is overlain by a deposit of red earth and clay varying in thickness according to the position of the deposit the slope of the beds, and the reposit that has taken place in the limestone

n n 1 f we fello not a lanftlan are and gives an

The deposit

varies within short distances both in degree and in direction. Limition is comparatively easily dissolved by running water and as a risult the diposit has been 'leached or ereded out at mervals and these gaps filled by clay or earth in which pieces of limestone are embedded.

The number of workers employed in the quarry varied from 290 to 490 persons according to the supply of labour. The bulk of the labour was employed in carrying the bimestone out of the quarry and remains the overburder. In places the limestone had to be blasted.

There were several pathways into the quarry—one one each of the so it, and west sides and other pathways on the north rede from a fair was not being extended on the south sade and work in this last of the quarry was

was confined to the removal of limestone from the floor of the quarry at a distance of about 15 feet from the face of the side which fell.

The south side of the quarry across a width of about 75 feet suddenly collapsed and the debris, consisting of blocks of limestone, earth and clay was debouched over practically the whole width of the quarry and for a distance of approximately 35 feet from the original face of the side at surface level. Nine persons—seven men and two women—were caught by the fall and either partially or completely buried by it. These nine persons were killed. Five bodies were recovered the same day, two were recovered on the 27th February, one on the 28th February, and one on the 2nd March.

Figure 5 shows the appearance of the place of accident after the fall and the approximate positions of the persons killed. Eight persons—five men and three women were injured. None of these persons appear to have been seriously injured and they are all expected to recover.

The accident was due to a collapse of the south side of the quarry as described. The collapse of the side was due to a number of factors as follows:—

- (a) The character of the limestone deposit. The beds of limestone are lying at an inclination of between 20 and 25 degrees to the horizontal in a northerly direction. The limestone is not massive, i.e., the deposit is not homogenious throughout. It consists of layers of limestone of varying thickness interlain with thin laminae of clay. The limestone beds are also broken up to some extent by joint planes. The upper surface of the limestone deposit is irregular in shape as is shown in Figure 2, and further the amount and direction of the inclination of the beds is not constant.
- (b) There was and is a considerable thickness of red earth and clay lying on the limectone beds adding to the weight and thrust against the bcds in the direction of the slope of the latter. There exists little cohesion between the earth and clay and the limestone beds.
- (c) On one side of the fall there was a well pronounced joint plane with greasy surfaces. This plane is shown in Figures 1 and 5.
- (d) On the other side of the fall the limestone had been leached out or eroded so that the thickness of the red earth and clay overburden was thicker at that side than on the side next the joint plane mentioned in (c).
- (e) There had apparently been heavy rain on the night of the 25th February—the night before the aecident. This rain may have and probably did contribute to the collapse by lubricating the joint plane mentioned, the joints and bedding planes of the limestone and by softening the superficial earth and clay. The side was released by the pronounced joint plane already mentioned and by the cutting of the limestone in the deeper part of the quarry. The weight of red earth and clay pressing against the limestone caused the latter to slip with the result that there was a general sliding of the limestone downhill and a subsequent collapse of the overburden.

All the attnesses examined stated that there was no indication of a full likely to take place. The manager stated that he was at the place at 2.30 pm—about an hour before the needent and did not notice anything wrong. There was no sign of any movement and no one said to lim that there was

signs of an imminent full. If the same conditions had prevailed on the north, east or west side of the quarry such a fall would not have occurred as on the north side the limestone helds dipped away from the place of work and on the east and west sides the helds of limestone by ma horizontal direction

Regulation 38 of the Indian Metalliferous Wines Regulations requires that the sides of open workings shall be sloped a tepped or scutred in such a manner nato prevent danger from falls of material

There was a travelling foot path on the face of the side which fell so that at one part of the side the face was stepped twice (see Figure 4)

The foot path appeared to be of the requisite width as required by Regulation 41 A of the Indian Metalliferous Mines Regulations But I do not consider that the foot path amounted to stepping the sides as a required by Regulation 33. The foot path was sloping and while it night have constituted a suitable "step" at its beginning it did not so conform at its end and for a considerable part of its length. Moreover, the foot path did not extend over the whole length of the face but only a part of it

The sides of the excavation were sloped only very slightly as may be seen from the sketches Figures 2 and 3 (Plan No 2) and I do not consider them to have been adequately sloped

The amount of stepping or sloping of the side of an excivation depends on the nature of the ground. If the ground is throughout of hard stone and not highly inclined very little slope may be necessary to secure a sidely But if the ground is soft and the deposit is in layers, and highly inclined as in this case, very considerable slope or definite and frequent stepping is necessary. Such sloping or stepping had not been done.

Proceedings were instituted against the agent and the manager

As a result of this accident a code of of the slope of the sides and the nature of might be considered adequate, was issued in the considered of the owners of the considered of the considered

No IV, Statement No 19) to the owners of this mine and to the owners and agents of all other working limestone mine s

IN SHAFTS (WHILST ASCENDING OR DESCRIDING BY MACHINERY)

No 167 —The Bengal Coal Company, Limited s Banksimulla (Nos 7 and 8 pits) coal mine

(Three persons killed)

This accident occurred at a shaft, 16 feet diameter and 925 feet dear at which sinking had just been finished. This shaft passes through important seams—the Koithi and the Poniati



and he was coughing frequently

The doctor administered smelling salts but he expired at 9 30 P M

The remaining fourteen men were removed to Dhanbud hospital at about 11 45 P M where they were kept as in patients for observation

As the condition of Akal Majhi Dhanii Dhohi and Dhanii Routh was precarious, oxygen was administered and their condition improved under this treatment

Akal Majhi, kowever, died four days later but the other thirteen patients recovered

The accident was clearly due to absorption by the deceased and the injure of persons of nitrous fumes. Nitrous fumes no produced when certain intro giverine explosives are fired particularly if the detonation is not complete, and some of the explosive birms instead of detonating. These fumes have an extremely irritating action upon the respiratory passages and are highly poisonous. The extreme symptoms do not usually manifest themselves for several hours after exposure and during the early stages of exposure to the fumes in persons may feel ill and couch violently after which he appears to recover. Several hours later, however more pronounced symptoms make their appearance their intensity depending upon the degree of exposure to the fumes. If large quantities have been inhaled bronchits and pneumonia may develop and death may ensue within forty oight hours. Nitrous fumes are very soluble in water.

The staff in charge of the shaft sinking was thoroughly experienced. The petty contractor had sunk no less than five other shafts. The charge man was also no experienced shaft sinker. In addition to the chargemut there was a fully qualified overman who examined the shaft before the sinkers descended after blasting but us he did not remain in the shaft for any considerable time he was not affected.

This is an unusual type of accident but in order to guard against a reourience it is considered that artificial means of centilation should be introduced when suckine shafts extend beyond a depth of 100 fect

BY EXPLOSIVES

No 102 —Messrs Anandamoyee Coal Compa vy s Khas Junagera coal mune

(Three persons killed and two senously injured)

This accident occurred while preparations were being made for blast in a gallery in the middle section of No 10 seam. It is appears that about 5 lb of loose gunpowder bad been taken to the place. According to the evidence of the overmon in charge of that part of the mine three persons were set to drill boles to hlast down a stone band in the roof. Work was commenced at about 9.4 m on day of accident and at about 2.4 m theorem is nound that three holes had been drilled but the shot firer had not arrived to conduct blasting operations. When the overman visited the place later be noticed that one of the men was charging a hole and the shot firer with two other men was sitting on the floor of the gallery and a causter was placed between them. The hid of the causter had been removed and the overnin saw paner casures in the form of cartridges.

There were two lighted "mug lamps"—one on each side of the canister and only a short distance from it. The shot-firer was close to the canister and he was smoking a "biri".

From the evidence recorded by the officer who investigated this accident it is evident that cartridges of gunpowder were being prepared at the site of the accident. The shot-firer, who subsequently died as a result of his injuries sustained at time of accident, admitted taking loose gunpowder into the mine.

It seems that a "mug lamp" was suspended from the roof for better illumination while a hole was being charged, and that this lamp fell from the roof to a point near the canister where some loose gunpowder was ignited, resulting in the accident.

Accidents of this nature are easily avoided by exercising reasonable care and complying with the Coal Mines Regulations. Regulation 102 requires that gunpowder shall not be issued for use in blasting operations in a mine or used in a mine, except in the form of cartridges.

Criminal proceedings were instituted against the manager and the magazine-keeper.

SUNDRIES UNDERGROUND.

No. 6.—The Raneegunge Coal Association Limited's Kustore coal mine.

(Two persons killed and three injured.)

This accident occurred in No. 13 seam at a point where coal is delivered into a bunker from No. 15 seam. The coal is loaded into 15 cwt. capacity tubs in No. 15 seam and then taken to the top of a chute which consists of a vertical shaft, 6 feet diameter and 118 feet deep, between 13 and 15 seams. From the bottom of the shaft an inclined drift, $7' \times 7'$ and 138 feet long on a slope of 1 in 1 leads to a large bunker situated in 13 scam. The coal in the 15 cwt. tubs is delivered into the vertical shaft through a tippler and then falls into the bunker below where it is loaded into 3-ton mine cars. The Inspector of Mines, No. 1 Circle, who enquired into this accident gave the following description of the accident:—

"The bunker is a composite structure of steel plates, girders and brick-Sometime during the night shift of 6th-7th January it was found that a jamb had occurred in the shaft or drift and coal was not falling into the bunker after being delivered from No. 15 seam. The assistant manager was informed of this at 6 A.M. on 7th January and after reporting the matter to the manager he proceeded to No. 15 seam to arrange for water to be run into the chute in order to loosen the coal causing the jamb. Instructions had previously been sent to the staff at the bunker to stand clear until the coal was loosened. Water was run into the shaft for about fifteen minutes without result, and the assistant then stopped the water and proceeded to 13 scam in order to ascertain conditions at the bunker cnd. On the way he was informed that the coal had fallen away and on arriving at the bunker found coal and water falling past the slide gate which was open. The gate was closed and the water allowed to escape through the perforations in the plate. Accompanied by the head fitter the assistant then inspected the bunker. They both affirm that they found everything in order and that the side walls had not been damaged in any way by the fall of coal. The assistant then gave orders for loading to commence and stood by until cleven mino cars, representing 33 tons of coal, had been loaded and drawn away. After giving orders for no more coal to be dumed from No 15 scam until he had an opportunity to examine the shaft and meline he left the place. Pollowing the assistant's departure three more nome cars were louded. As the fifteenth car was being loaded there mas a sudden load noise of coal falling into the bunker and the south wall of the bunker burst open, presputating coul on the trum line below. There were set persons working in the vicinity, of whom only one escaped migry. Two of the remaining five were burned be neath the broken will and coal and were I filed metantly, while the other three sustained serious injuries. Pollowing the accelent it was found that about 10 to 12 tons of coal had fallen from the bunker on to the train line. Among the loose coal was a steel girder. It appears that during the suiking of the shaft girders were fitted into the sides in order to provide statings for a pump I'wo or three of these girders were left in the shaft after the commencement of dumping operations. In my of muon the garder which was found with the coal was the cause of the coal priming in the shaft for it is probable that the coal was held up by the girder which had fallen from its original position and was jammed at the junction of the shaft and drift"

Since the bunker had been just into use in April 1936 approximately 30 000 tons of coal had presed through it at time of readent. On at least two occasions the bunker and the shift induce above had be in filled with coal up to No 15 seem, and the bunker hal proved strong count to withstand the pressure. The Inspector of Minos count tried that the coal which caused the damage amounted to about 10 tons at 1 probably fell from a height of 128 feet down a slope of 1 in 1.

The south wall of the bunker was 21 nebes thank, both of bor breks meanent and said and erected on two 12 nebes green Labed by pile. Retaining walls had also been built up to the level of the prairies but they formed no support to the wall itself.

Since the accident all the girders in the 1.26 have been removed and the busher strengthered. Although the recovery two bushers and hotels for sent its best understood the necessity to keep 2 of 2.60 and donler, which are used for work of this nature, clear of all electricages.

SECTION IV.—Protecutions and amendments to the Art, Regulations, Rules and Orders made Lorender.

Preserves .

During the year | " were give or Emperil and land " we -

Trojon versenedat a selection of less as the engineer cuted for fair to a specific a selection of the selection are considered for a selection to the engineer and the engineer

Two miners of a coal mine in the Jharia coalfield were prosecuted for working in a place in which they had not been ordered to work and for cutting coal from a pillar without authority. The case was withdrawn as the accused could not be traced.

The late manager and the assistant in-charge of the magazine of a coal mine in the Jharia coalfield were prosecuted for issuing gunpowder not in the form of cartridges and for preparing cartridges in a place that was not approved for the purpose. The former was fined Rs. 100 and the latter Rs. 50.

The owner of a coal mine in the Jharia coalfield was prosecuted for working the mine without a qualified manager; for failing to maintain reports required under Regulation 70, and for failing to maintain correctly the attendance registers. The case was withdrawn.

The owner and the manager of a coal mine in the Jharia coalfield were prosecuted for employing more women underground than the permitted percentage and for not maintaining a correct register of the persons employed underground. The owner was fined Rs. 100 and the manager Rs. 50.

The agent of a coal mine in the Jharia coalfield was prosecuted for allowing persons to work and raise coal from a prohibited area contrary to orders issued by the Inspector of Mines. He was fined Rs. 30.

The owner and manager of a coal mine in the Jharia coalfield were prosecuted for failing to fence off some galleries leading from a quarry; for failing to fence an incline; for not providing proper foot-paths in a quarry; for failing to slope the sides of the quarry to prevent danger from falls of material and for not maintaining plans of the underground workings of the mine as is required by the regulations. The owner was fined Rs. 200, and the manager Rs. 100.

The owner of a coal mine in the Jharia coalfield was prosecuted for not having properly stepped or sloped or otherwise secured the sides of the quarries and for also failing to keep fenced the top of the quarries. He was fined Rs. 50.

The agent and manager of a coal mine in the Jharia coalfield were prosecuted for failing to step, slope or secure the sides of quarry with the result that a fatal accident occurred by a fall of side. The agent was fined Rs. 500 and the manager Rs. 200.

The owner and manager of a coal name in the Jharia coalfield were prosecuted for not issuing gunpowder in the form of cartridges; for not appointing a competent person in writing for preparing cartridges and for not providing a proper place for the preparation of cartridges. The owner was fined Rs. 50 and the manager Rs. 25.

The owner and temporary manager of a coal mine in the Jharia coalfield were prosecuted for employing women underground in contravention of regulations and for failing to appoint a person in authority underground while work was in progress. The former was fined Rs. 50 and the latter Rs. 25.

The manager and attendance clerk of a coal mmc in the Rangam coal fide were prosecuted for failing to keep a correct record of the number of petsons going underground, and for employing more women underground than the permitted percentage attendance letel Rs 100

The agent, manager and register clerk of a coal mino in the Jharia coalfield were prosecuted the agent and manager for employing women under ground in contravention of the regulations and the register clerk for inling to keep a correct record of the pursons wording underground in the nime. The agent and manager were fined Rs 250 each and the attendance clerk Rs 30

The owner and manager of a coal mine in the Jharia coalfield were prosecuted for fuling to keep a correct record in the register of persons working underground in the mine. The owner was acquitted and the manager fined Rs. 75

For the same offence the acting manager and register keeper of a coal mine in the Jharia coalfield were prosecuted. The case was withdrawn

The owner, manager and register clerk of a coal mine in the Jharia coalfield were prosecuted the owner and manager for employing women underground in the mine in contravention of the regulations for failing to maintain a correct register of the persons working underground in the mine, for failing to appoint in writing some person in authority under ground while work was in progress and the register clerk for failing to keep a correct record of the number of persons going underground and returning therefrom They were each fined Rs 50

The owner and agent of a coal mino in the Jharia coalfield were prose cuted for failing to keep a separate tricing of a surface plan for failing to keep the sides of the inchino secure and for failing to fence certain inclines and inadequately fencing others and also for not fencing two air shrifts and a quarry. They were fined Rs 50 each

The owner, agent and manager of a coal mine in the Ranganj coalfield were prosecuted for employing an excessive number of female workers in the underground workings of the nume for fulling to have available workers underground in the register and for fulling to have available copies of the Act the regulations and rules and amendments thereto. The owner and manager were fined Rs 50 each and the agent 48 200

Jhrua coalfield were prose of the inclines for failing ich a minner as to prevent up outside the office of the

mine a notice in the prescribed form styting the time of commencement and of the end of worl at the mine for failing to maintain a register of work persons underground, for failing to have available a stretcher at the min for failing to maintain as exparate thacing of the surface plan to maintain an up to date plan of the section workings of were fined Rs 50 each

The three joint owners and manager of a coal mine in the Jharia coalfield were prosecuted for failing to slope, step or keep secure the sides of a quarry. They were fined Rs. 50 each,

The owner, manager, overman and attendance cierk of a coal mine in the Iberia coalfield were prosecuted; the attendance cierk for not maintaining a correct register of the work-persons and the owner and manager for employing women underground in excess of the permitted percentage. They were fined Rs. 20 each.

For the same offence the agent, manager and attendance clerk of a coal mine in the Jharia coalfield were prosecuted. The agent was fined Rs. 250, the manager Rs. 50 and the attendance clerk Rs. 100.

The receiver and manager of a coal mine in the Jharia coalfield were prosecuted for using the surface tramline which passed over unstable workings in contravention of the orders imposed by the Inspector of Mines. They were fined Rs. 30 each.

The owner, agent and register clerk of a coal mine in the Jharia coalfield were prescented; the owner and agent for failing to submit a written notice authorising a competent person to act as manager of the mine; for employing women underground in excess of the permitted percentage; for failing to have the required inspections made by a competent person; and the register clerk for failing to keep a correct record of the persons employed underground. The owner and agent were fined Rs. 50 each and the register clerk Rs. 25.

The two joint owners, the agent and manager, of a coal mine in the Jharia coalfield were prosecuted for failing to post a relay notice outside the office of the mine; for failing to maintain a complete surface plan of the mine; for failing to slope back properly the sides of an incline and for failing to fence an incline. The owners were fined Rs. 20 each, the agent Rs. 30 and the manager Rs. 50.

The agent, manager and register elerk of a coal mine in the Jharia coalfield were proscented; the agent and manager for employing women underground in excess of the permitted percentage and for allowing persons to remain underground after the end of the relay; the register clerk for failing to keep a correct register of the persons working underground. The agent was fined Rs. 100, the manager Rs. 250, and the register clerk Rs. 25.

The acting manager, the man in charge of the magazine and a miner of a coal mine in the Raniganj coalfield were prosecuted; the acting manager for permitting the use of loose gunpowder underground and for failing to see that explosives left over at the end of the relay were returned to the magazine; the man in charge of the magazine for issuing loose gunpowder to miners for use underground instead of in the form of cartridges; and the miner for using loose gunpowder underground and for failing to return to the magazine the mused gunpowder at the end of the relay. The case is still pending.

The manager and attendance clerk of a coal mine in the Raniganj coal-field were prosecuted; the attendance clerk for failing to keep a correct record of the number of persons working underground; and the manager for allowing women underground without issuing passes to them; and for em-

ploying an excessive number of women underground The manager was fined Rs 25 and the attendance clerk Rs 10

The owner of a coal mine in the Rangani coalfield was prosecuted for failing to appoint a competent manager He was fined Rs 400

The two joint owners and the agent of a coul mino in the Pench Valley coal field were prosecuted for fuling to hand over to the new owner all plans books and other records required to be kept under the Act. The owners were acquitted and the agent was fined R= 400.

The owner, acting manager and register clerk of a coal mine in the Ramganj coalfield were prosecuted the owner and acting manager for employing women underground in excess of the permitted percentage and for allowing persons to work underground after the time fixed for the termination of the relay, and the register clerk for not maintaining a correct register of persons going underground. The owner was fined Rs 130 the acting manager Rs 50 and the register clerk Rs 20

The manager and attendance clerk field were prosecuted, the manager for time of the relays to the Chief Inspector fuling to maintain a correct record of the persons going underground and returning from underground daily. The manager was fined Rs 100 and the attendance clerk Rs 50.

The owner and manager of a china city mine in the Bhagalpur district very procedured for allowing women to carry city from the underground workings. They were both acquitted

The agent manager and attendance clerk of a coal mine in the Ranganj coalfield were prosecuted, the agent and manager for employing an excessive number of women in the underground workings of the mine the attendance clerk for failing to maintain a correct record of persons at work underground. The agent was fined Rs 250 the manager Rs 125 and the attendance clerk Rs 25

The owner of a coal mine in the Jharia coalfield was prosecuted for permitting persons to go underground in contravention of written orders from the inspector of lines, for permitting women underground in excess of the number permitted, for employing a child in the underground workings of the mine for failing to maintrain a correct record of the persons working without a gualified manager and for

underground while work was being

The manager, attendance clerk and night shift sirder of a coal mine in the Ramiganj coaliseld were proceeded the manager for employing an excessive number of female workers underground, the attendance clerk for failing to keep a correct record of the number of persons going underground, and the night shift sirder for sleeping while on daty. The manager and attendance clerk were fined Rs 25 each and the sirder Rs 10

The owner of a coal mine in the Jharia coalfield was prosecuted for employing persons to work in a prohibited area in contravention c' on orders from the Inspector of Mines. He was fined Rs 25 The owner, overman and attendance clerk of a coal mine in the Jharia coalfield were prosecuted; the owner for employing an excessive number of women underground; for failing to authorise a competent person to act as manager and for failing to arrange for the inspection of underground workings by a competent person; the overman for absenting himself from duty while work was in progress in the mine and for failing to make the inspections required; and the attendance clerk for failing to maintain a correct record of the persons at work underground. The owner was fined Rs. 25 and the other two Rs. 10 each.

The owner, manager and register clerk of a eoal mine in the Jharia coal-field were prosecuted; the owner and manager for employing an excessive number of women underground; for failing to arrange for a person in authority to be constantly underground while work was being earried on and for failing to keep fenced a quarry which was not in use or course of working; and the register clerk for failing to maintain a correct record of the number of persons working underground. The owner was fined Rs. 200, the manager Rs. 50 and the register clerk Rs. 20.

The manager and blasting mistry of a mica mine in the Nellore district were prosecuted; the former for not ordering the blasting mistry back to his working place when he found that he was on the surface, and the latter for not being present when miners were drilling a relieving hole after a misfired shot had occurred. The manager was fined Rs. 50 and the blasting mistry Rs. 25.

The agent and manager of a limestone mine in the Jubbulpore district of the Central Provinces were prosecuted for failing to slope, step or secure the sides of a quarry in such a manner as to prevent danger from falls of side. The agent was fined Rs. 1,000 and the manager Rs. 750.

Two prosecutions against an agent and a late owner were instituted for failure to submit annual returns within the prescribed date. They were fined Rs. 25 each.

Information was received of the following prosecutions instituted by mine officials against subordinate staff:—

A shot-firer of a coal mine in the Pench Valley coalfield was prosecuted for firing a shot in a split gallery without giving sufficient warning or fencing off the other workings. He was fined Rs. 30.

An engine driver employed at a coal mine in the Pench Valley coalfield was prosecuted as he was found sleeping whilst on duty. He was fined Rs. 20.

An underground pump khalassie of a coal mine in the Raniganj coalfield was prosecuted for lighting a wood fire in the pump room. He was fined Rs. 40.

AMENDMENTS TO THE INDIAN MINES ACT AND TO THE REGULATIONS, RULES AND BYE-LAWS MADE UNDER THE ACT.

In Notification No. M-1055, dated the 27th January 1937, issued by the Government of India, Department of Industries and Labour, certain further amendments to the Supplementary Coal Mines (Temporary) Regulations, 1936, were published. The notification is reproduced in Appendix IV, Statement No. 3

In Notification No. M 1051 dated the 27th January, 1937, issued by the Government of India Department of Industries and Labour, further amend ments were made in Appendix 1 to the Schedule to the Notification of the Government of India in the Department of Industries and Labour, No. M 1051 dated the 1st October 1935. The notification is reproduced in Appendix IV, Statement No. 4.

In Notification No M 966 dated the 30th January 1937 issued by the Government of India Department of Industries and Labour, certain further Temporary Regulations were issued They are reproduced in Appendix IV, Statement No 5

In Notification No. M 10.5 dated the 1st Pebruary 1937, regulations prohibiting the employment of women indegreemed in mines were issued. The notification is reproduced in Appendix IV, Statement No. 6

In Notification No. M. 10°5 dated the 25th February 1937, issued by the Government of India Department of Indiarces and Labour, further amount ments were made in the Schedule to the notification of the Government of India in the Department of Indiarces and Labour, No. M. 1051, dated the 1st October 1935. The notification is reproduced in Appendix IV, Statem at No. 7.

In Notification No. 453 VII M 7/37 Com, dated the 12th March 1937, the Government of Bhar in Acresso of the powers conferred by clause (a) of Section 30 of the Indian Mines Act, 1923 (IV of 1923) issued rules for the constitution of Mining Boards for both cord and other than coal mines The notification is reproduced in Appendix IV Statement No. 8

In Notification No M 1055 dated the 17th June 1937, issued by the Government of Indra Department of Industries and Labour, all coal mines in Bengal Bihar, the Central Provinces and Oussa were exempted for a period of three months from 1st July 1937, from the provisions of clause (1) of Section 29 of the said date to the extent to which regulations made there under prohibited the entry of women into underground workings for purposes of employment. This exemption was subject to the conditions that the total in timber of women employed in the underground workings of any mine on any day did not exceed 5 per cent of the total number of persons so employed. The conditions that the total in the condition of the total number of the persons so employed.

In Notification No M 966 dated the 10th July 1937, issued by the Government of India Department of Industries and Labour certain further temporary regulations were issued They are reproduced in Appendix IV Statement No 10

In a press Communique, dated the 10th September 1937, issued by the Government of India Department of Indiastries and Labour, the cmj lopment of women underground in coal mines was totally prolubited with effect from the 1st October 1937 The communique is reproduced in Appendix IV Statement No 11

In notifications Nos. 227 3314 MH of 1975 and 225 2314 MH of 25d dated the 25th January, 1937, and No. 5-69 I M 5 1937-6 on a second the Central Provinces and Benefit of Government of Orisa made certain amendments to their rules. The fractions are reproduced in Appendix II, Statements No. 19

Act No. XXIX of 1937.—An Act further to amend the Indian Mines Act, 1923, came into force on the 3rd December 1937. This is reproduced in Appendix IV, Statement No. 15.

In Notification No. P. 2, dated the 15th December 1937, issued by the Government of India, Department of Mines, a list of "Permitted" explosives and a list of approved types of shot-firing apparatus were issued. The notification is reproduced in Appendix IV, Statement No. 16.

By the end of the year bye-laws under Section 32 of the Act had been established at six hundred and thirteen coal mines and twenty-two mines other than coal. Amended Bye-laws were established in four hundred and fifteen coal mines. Bye-laws for the treatment of coal-dust had also been established in forty-four coal mines.

During the year seven circular letters were issued to owners, agents and managers of coal mines. They are reproduced in Appendix IV, Statements Nos. 17 to 23.

SECTION V.-GENERAL REMARKS.

UNDERGROUND FIRES.

In my reports for the years 1932, 1933 and 1935 reference has been made to fires at several collieries and the precautionary measures taken to prevent the spread of these fires.

At the Khas Jharia group of mines "blanketting" work was done to prevent any further extension of the fire towards Jharia town and the Jharia-Pathardih main line of the East Indian Railway. Donations by the Raja of Jharia and the Jharia Mines Board of Health and the valuable assistance given by Rao Bahadur D. D. Thacker of Jharia have enabled the protective works in the vicinity of Jharia town to be continued.

In my Annual Report for the year 1933, reference was made to an outbreak of fire at the Kusunda group of collieries which traversed an area of old workings in several seams and threatened the stability of the Kari river due to the old workings beneath and in the vicinity thereof being on fire. Several large concerns which undertook protective measures at great cost to safeguard the river and adjoining mines coutinued to flush "muttee" and sand through borcholes in the river bed. Practically the whole of the old workings in Nos. 11-12 seams beneath the river have been completely stowed and the stowing of galleries in No. 13 seam in proximity to the river has been commenced. It is anticipated that these protective measures will be successful.

Due to the shallow depths, the contiguity and great thickness of some of the seams liable to spontaneous combustion and the fact that no provision was made when developing some of the old mines for isolating areas liable to spontaneous heating, the difficulties in working such mines where it is necessary to adopt precautionary measures for dealing with and isolating fires have been greatly enhanced in recent years.

EXCLUSION OF PURITY FROM UNDERGROUND WORKINGS IN MINES

lu Rebruary the Government of Indra issued regulations under the Indra Mines Act prohibiting the employment of women underground it was intended that the regulations should come into force with effect from the 1st July 1937, but due to representations being made by various bodies Government decided to postpone for three months the date for the total exclusion of women from the underground workings in coal mines in Bengal, Bihar, the Central Pronuess and Orissa provided that the presented percentage for the year 1937 was not exceeded. On the 22nd September 1937, Government issued a press communique stating that no

into operation with effect from by the Labour Associations in the iew of the exclusion of women rates of two to three onnas per

toh according to the capacity of the tub, were given of most collicries. There were no demonstrations on the lat October when women were excluded from the mines. In a few isolated leases small batches of miners refused to go down the mine because they could not take their women. About a fortinght after the prohibition of female labour from underground there was n privil strike at a large colliery in the dharts coalfield employing nhout 3 000 workers daily. About 300 underground worders stopped work until their rates had been increased. Other workers in the mine became affected. After three or four days increased rates were given and normal conditions were resumed. There were no other incidents in the coalfields and work was resumed to a normal way after the Durg's Puja holidays believed to the women excluded from underground workings have been found employment on screening pluts preparing mert dust for treating coal dust, on general surface work and in quarries.

HEALTH AND SANITATION

the Aamsol Mines Board of Health held four special and the on only nev meetings during the year Dr. L. Sea v.a. Chief Saintan Officer of the Board throughout the year except for a period of six week ks in Mai and Jine when Dr. S. Roy, Bacteriologist, officiated in his place. They are 1937 was healthier than the proceding three year. There was a decline in deaths for all ages sool for infants while the upward trind in the birth rate noticed in 1936, was maintained in 1937. The death rate among the collery population was considerably lover than that of the great population were lower than that of the province year. The rise fewer mortality in September and the following months concreted with the seasonal increase of malars.

Epidemic cholera was conspruous brits absence during the real majority of cases were of a sporate nature. There were 272 acres 85 deaths during the year, as against 434 attacks and 1-0.

in madema rate in collections for the relief while that in villages was an arrange and a contract of the place of the contract of the the of the contract of the state of many the property and the contract and the contract of the The district of the district of the major of me one mountain was ther the one of the dreet market and desired and the market and the dreet and the test and the market and the contract the dreet and the test and the market and the contract the dreet and the test and the test and the contract the contract

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Santy months that Commenter Commente Bully Show and Health Competitions described homo-maxime and mother than the few arts on first-and homo-maxime and mother than the few arts on first-and homo-maxime and mother than the few arts on first-and homo-maxime and mother than the few arts on first-and homo-maxime and mother than the few arts on first-and homo-maxime and mother than the few arts of the few Dark Shore at a treated for this is a first and to the form the first and the first an may in mercanic and the syllabus had down by the St. John Ambulance Associated to the syllabus maked one of the syllabus m Just a school and inter-colliery ambulance competitions were distinguished in the school and inter-colliery ambulance competitions. training the Candidates up to the senior first-and standard. A junior Colliers, Comparator and Company to manual Prometer prior, the distribution of the dis

Firdur-

A special survey of the incidence of leprosy among school child The per entire, of leprost was found to be 2.3 amo students examined in 165 schools, as against the incidence rate Scarcia communication of a post-town a constitution of the general population. cent. In the general paperation, of the total collection and the total collection.

Lepting clinic out of paper Rabial Association and the total collection. need by the Lepton Relief As-ociation and the total collection nised by the Leprosy Renel Association and the total conection of these etc., came to Rs. 11,330. There is a staff of four Leprosy etc., came to Rs. 11,330. maintained is into the the conection of the state of the conection. or many constants trained assistants maintained jointly by the Brand thirteen trained assistants

The Board carried out anti-malaria operations in three ex-Taenhimr in a decline of malaria over these areas. Leprosy Relief Association.

a compagn in Toposi area has been houted in extent, due to the pressure of a large number of subsidences and abandoned pits, and the restricted nature of the compagn itself.

During the year 1937, the Jharia Muies Board of Health held twelve ordinary, six special meetings and one joint meeting with the Tharia Water Board The estimated population of the Settlement was 555 573 persons The death rate was 16 50 per thousand as compared with 16 10 in the previous year. There were 27 cases of suspected cholers with 14 deaths as compared with 64 cases with 39 deaths in the previous year. The number of deaths on collieries from cholers was g as compared with 11 in the pre vious year The total number of anti-cholera moculations performed was 2 900 During the year there were 418 eases of suspected small jox with 6 deaths as compared with 3 733 crees with 329 deaths in the previous year Eight hundred and eighty nine samples of food were unalysed in the Board's laboratory and prosecutions were ordered in all cases of adulteration. With a view to improve the colliery housing the five years housing programme enforced by the Board last year continued during the year. Subjects chosen for propaganda work were known materiaty and child welfare general hygiene and sanitation and ventilation in mines. As in previous years all les rosy rehef work continued to be managed by the Dhanbad and District Leprosy Relief Association which organised a laper day on the 17th April 1937 and was successful in raising Rs 11 750 on the occasion. The District Board, the Dhanbad Municipality and the Jharm Mines Board of Mealth continued their annual grants during the year Dr M Wardman Chief Leprosy Officer, joined her jost on the 16th May 1937. The opening cerumony of the Leprosy Hos jutal at Tetulmum was jerformed by its I'veell ney Sir Maurice Garnier Hallett & C S I C I E I C S the Governor of Bihar, on the 24th October 1937

During the year 815 aew patients were treated in the different clinics the total number of treatments given being 28711

The Jharia Water Board continued to function throughout the year total quantity of water supplied to the Jhara coaffield during the year 1937 was about 475 million galloas as under —

		Gallons	
1	Coll er es	391 990 00	ю
9	\on-colliery I remises (domestic and non-domestic suffly)	33 215 00	Ю
3	Bazars	51 100 00	Ю
	Total	475 50 00	0
			_

Inspections Made by Medical Officers as ex-officio inspectors of Mines

During the year many reports were received from provincial and district Medical Officers of Health concerning health and saint twon. All the right orts were dealt with and most of the recommendations were cirried out.

STATISTICS OF RAINFALL.

Statistics of rainfall in the eastern coalfields have been recorded as follows:--

										Rainfall	in inchos.
										1937.	1936.
Iliatia Coalfield-	-										
Jealgora.		•	•							49:37	61.78
Topchanchi	•	•	•	•	•		•	•	•	56.18	09.80
Raniganj Coalfield	d										
Arangol .	•		•	•	•					56-53	59.84
Dishergath	•	•	•	•	•		•	•	•	58-93	57:79
Giridih Coalfield-											
Giridih .	•		•	•	•	•				60.75	77:37

Ambulance Work.

Classes in First-Aid were held at twenty-four centres in the Jharia coalfield and also in the mining areas of Singhbhum. Three hundred and eighty students attended these classes and 282 certificates were awarded. In the Raniganj coalfield similar classes were held at seven centres. One hundred and forty seven students attended these classes and 105 certificates were awarded. A St. John's Ambulance Shield was competed for among teams from various collicries in the Raniganj coalfield. The shield was won by Sitalpur No. I team (Messes. Bengal Coal Company, Limited) the runners up being Samla No. I team (Messes. Martin & Company). In addition to the above competition which is only open to persons holding the St. John's Ambulance Certificate, another competition was inaugurated during the year. This competition was for the Laug-Cunningham Memorial Shield. Persons not holding the St. John's Ambulance Certificate were allowed to compete, the object being to stimulate interest among the more illiterate workers.

I desire to express my appreciation of the valuable work done by lecturers and examiners during the year in the two major coalfields and in other mining districts.

MINING BOARDS IN BENGAL, BIHAR AND THE CENTRAL PROVINCES.

The Bengal Mining Board held two meetings during the year. Among the subjects discussed at the meetings and by correspondence were:—
(a) Temporary Regulations for coal mines; (b) amendments to the Supplementary Coal. Mines (Temporary) Regulations; (c) Regulations for prohibiting the employment of women underground in mines; (d) exemption of certain mines from the operation of the Indian Mines Act, 1923; (e) amendments in the Schedule to the Notification of the Government of India, in the Department of Industries and Labour, No. M-1051, dated the 1st October 1935, regarding exemption; (f) postponment of the regulations for

prohibiting the engloyment of women underground in mines for a further period of three months, (g) emerdments to the Irdian Ceal Mines Regulations, 1926, and the Indian Metalliferous Mines Regulations 1926, (h) further amendments to the remainent Indian Coal Mines Regulations 1926,

rendered dangerous Coal Mines Regula

nents to the Indian Coal mines Regulations 1926, relating to control of first wording and section working. The non-official members of the Board were Messis. F. W. Manley, A. D. Ojia and Ru Salub Upendra Nath Mondal

The Biliar Muning Board for coal mines did not meet during the year. The subjects dealt with by correspondence were —(a) Amendments to the Indian Coal Mines Regulations 1926 and the Indian Metalliferous Mines Regulations, 1926, (b) further anisidates to the permanent Indian Coal Mines Regulations, 1926, (c) proposed amendment of the Coal Mines Regulations to introduce extification of shot fiters, and (d) amendments to the Indian Coal Mines Regulations, 1926, relating to control of first working and section working. The non-official members of the Board were Miessry D M Archibald, A I. Ojla, Khetri Nath Sen Gupta and J Mickie

The non official members of the Mining Board for mines other than coal mines were Mesers G A Young F G Percual, V K B Pillar and J W Kendall

The Central Provinces Mining Board held no meetings during the year the subjects dealt with by correspondence were —(a) amendments to the permanent Indian Coal Mines Regulations, 1926, (if) proposed amendments of the Coal Mines Regulations to introduce certification of shot fixers and (c) amendments to the Indian Coal Mines Regulations, 1926, relating to control of first working and section working. The non-official members of the Board where Meesrs D M Nargolaville Li Bartlett, O B E, G Llewelyn, Shamsher Bahadur Yerms and Kuuyulla Tulsiram Mehta

BOARD OF EXAMINERS

Five meetings of the Board of Lanniners were held during the year. The non official members of the Board were Messrs J Macke, N N Sarkar and L A Jacobs for the first four meetings. Mr Jas E Thelis was appoint ed a member of the Board for the list meeting, wee Mr I Macke who had respect to the local examiners appointed were Messrs W B Pennan and S C Ghosh for coal mine managers first class certificates, Messrs James Thomson and R Hearn for coal mine managers second class certificates and Mr J Mackay for the examination for coal mine surveyors' certificates. Mr A Young, Inspector of Mines (Offg.) was also an examiner and acted as Secretary for the coal mine managers' first and second class examinations, Mr N Barnaclough was also an examiner and acted as Secretary for the coal mine surveyors' examination

Ten first class certificates of competency to manage a coal mine were granted in lieu of British certificates of the same class At the examinations for coal mine managers' certificates held at Dhanbad in February and March, 8) condidates est for first class certificates and 56 for second class certificates. Seven certificates of the first class and twenty-two of the second class were granted. One duplicate enryeyors' certificate of service was granted. At the examination for each mine surveyors' certificates of competency held at Dirabbel to November, 35 candidates attended the examination—nine of them were succeed ful

Five him fred and cighty one per one were examined for coal mine sirdars' vertilicates of competency and 458 certificates were granted. Out of 829 holders of eights continuous examined in gassissting, 540 were successful and their certificates operated for resexuamisation in eyesight and hearing. 832 were successful and their certificates operated for resexuamisation in eyesight and hearing. 832 were successful and their certificates were duly endorsed. Under Coal Mines Regulation 40 the certificates of ten surfaces were suspended for periods varying from the eto six months. During the year 29 duplicate sirdars' certificates and 80 duplicate dives were a ned

MINING EDUCATION.

At the Indian School of Mines, the number of students on the roll at the beginning of the a sion was 68, as compared with 59 at the beginning of the provious session. The results of the Diploma and Certificate examinations held in July 1937, were as follows:

D.plama	nr Cei	rtifien	ite.	•			No. of candidates.	No. of successful candidates.
Digitims of Associatedlip i	n Ge	ology					3	2 (Class I).
								1 (Class II).
Diploms of Associateship i	n Mir	ing l	Cagin	cering			9	3 (Class I).
								6 (Class II).
Certificate in Geology		٠				•	1	1
Certificate in Metal Mining		•	٠		•	٠	5	ৰ
Certificate in Coal Mining			•	•	•	•	11	11

The mine surveying camp was pitched at Bhulanbararee colliery during the month of November 1937, and 48 students were in attendance. Visits and tours of inspection were paid to the mica mines of Kodarma, the copper and iron mines of Singlibhum and to many local collieries and places of geological interest. At the examinations held for coal mine managers' certificate held at Dhanbad in February, two former students obtained the first class colliery managers' certificate and five obtained the second class colliery managers' certificates. Two students obtained the surveyors' certificate of competency. In November 1937, the total number of students on the roll was 77.

In the Department of Mining and Metallurgy at the Benares Hindu University there were 95 students at the beginning of the session, as compared

with 80 at the beginning of the previous session. One student passed the final examination for the degree of B.Sc. in Uniting at distriction. If the date the total number of mining gradienters 29 and the total number of mining producters 29 mining producters 30. Immediately after qualifying produced at the product of mining gradienters 50. Immediately after qualifying produced at the product of the product o

No advanced classes were held in the Rangany coalfield derig Such classes however, continued to be hell under the surjucted. ment of Biliar at Jharia and Suna in the Haria coulfield Tree . of students attending the classes at these two centres was ? ... 56 in the previous year. Fighteen of the third year and in the the final examinations and eight were successful 1courses of lectures were delivered in the vernicular to ev in the Rangany coulfield in Beneal and in the Jhana e There were eight centres in the Rangani coulse! . this course. In the Jharra coalfield there were exce ---of 285 Classes in gas testing were allo held at 5 _-- m the Rangani coeffield and at Jhana m the Jlana of colliery sirdirs and shot firers in gas tesing Tan + = enrolled for these classes in the Ramgani ceal , -coulfield 48 Special classes in mine survey -tion for mine surveyers certificates of com property the middle of August to November

SCIENTIFIC AND TECHNOL ---

(a) Mining, Geological and Man -

During the year the name of the

The total membership region of the Institute reconstruction of

by Mr J P 1 de

Three issues of the Transactions were published. The Government of India prize was awarded to Mr. W. Gilbert for his paper entitled "Some Aspects of the Ceramic Industry"; the Institute gold medal to Mr. E. R. Gee for his paper. "The Economic Geology of the Northern Punjab, with notes on adjoining portions of the North-West Frontier Province"; the Institute silver nucdal to Mr. W. Gilbert for his above-mentioned paper; and two Institute bronze medals to Dr. J. Sanjana and Mr. R. A. MacGregor for their respective papers on "Phenomena within the plastic range of Coals" and "Deterioration of Steel under Service Stresses". The Pickering medal, presented by the Institute for the best student in mining at the Indian School of Mines, was awarded to Mr. I. S. Jain.

(b) The Geological, Mining and Metallurgical Society of India.

The total membership including subscribers at the close of session 1936-37 was 178. In addition to the annual general meeting, ten ordinary general meetings were held. Nine meetings were held in the Geological laboratory, Presidency College, Calcutta, and one meeting in the Indian School of Mines, Dhanbad. Fifteen original papers dealing with various aspects of geology were read and discussed. During the year parts 3 and 4 of Volume VIII and parts 1 and 2 of Volume 1X of the Quarterly Journal of the Society and one bulletin on "Coal Conservation" were published. During the year seven excursions to the following places were arranged:—National Iron and Steel Company, Limited, (Howrah); Bata Shoe Factory, Batanagar; Bharat Glass Works, Belgharia; Pottery Works, Belgharia; Peat Beds, Belgharia; Hukumehand Electric Steel Works, Ballygunj, Calcutta; and Loyabad Colliery Reseue Station, Jharia coalfield.

(e) The National Association of Colliery Managers (Indian Branch).

The number of members of the National Association of Colliery Managers, Indian Branch, at the end of the year was 90. Some of the subjects dealt with by the Council during the year were :- (1) the questionnaire of the Coal Mining Committee. Mr. R. J. Pothecary and Mr. J. Brook, as representatives of this Association, were orally examined by the Coal Mining Committee; (2) examination of the Bihar Government Notification relating to the registration of work-persons; (3) proposed bye-laws promulgated under the Bengal Mining Settlement Act by the Asansol Mines Board of Health for the prevention and control of epidemic diseases; (4) representations to the Chief Inspector of Mines in India on the question of the stoppage of mine ventilating fans; (5) recommendation to the Government of India that all women should be excluded from the underground workings in mines; (6) deputation to the East Indian and Bengal Nagpur Railways with the object of bringing about closer co-operation between colliery and railway staffs in the working of colliery sidings. Mr. M. M. Mukherjee was joint representative of the National Association of Colliery Managers, Indian Branch, and the Indian Mine Managers' Association on the Asansol Mines Board of Health; Mr. R. J. Pothecary represented the Association on the Health and Baby Welfare Central Committee, Asansol. Mr. J. Curley represented the Association on the Asansol Leprosy Relief Committee; Mr. J. T. Caldwell represented the Association on the Dhanbad Cemetery Committee and Mr. V. C. Durham on the Mining Education Advisory Board.

(c) The Indian Miners Association.

This Association is registered under the Indian Trade Union Act and has its head office at Jharia. This association is affiliated with the National Trades Union Federation, Bombay. The membership is given as over 4,000. The rates of subscription vary from one to four annas per month, according to the scale of pay. The association has conducted meetings and lantern lectures on sanitation, hygiene and temperance, etc. Assistance has also been rendered by the association in compensation claims and wage disputes.

COAL MINING COMMITTEE.

In my last report reference was made to the appointment of the Coal Mining Committee by the Government of India in their Resolution No. M-955, dated the 29th October 1936, and the terms of reference were given.

The report of the Committee was published in May 1937. It is of great value both as a comprehensive presentation of the conditions now obtaining in the coal mining industry in India and as furnishing a basis for the further consideration of the problems which these conditions create. The recommendations of the Committee were summarised in the final chapter of the report. The Government of India have already taken action on a number of these recommendations, while the more important proposals of the Committee relating to stowing in coal mines are engaging their attention.

VISITORS TO THE COALFIELDS.

His Excellency Sir Maurice Hallett, K.C.S.I., C.I.E., I.C.S., visited the Jharia coalfield in October. Inspections of underground workings were made at East Ena and Kustore collieries. At East Ena His Excellency was received by Rao Bahadur D. D. Thacker, Managing Director. At Kustore an inspection of a portion of the underground workings and a visit to the hospital and workshops were arranged. A surface inspection was also made of the fire areas at the Kari Jore. During the course of His Excellency's stay in Jharia coalfield visits were also paid to the Charitable Hospital and the Indiau School of Mines at Dhanbad. His Excellency formally opened Dr. G. C. Ghosh's Memorial Leprosy Hospital at Tetulmuri.

The Hon'ble Sir Muhammad Zafrullah Khan, Kt., Bar-at-Law, Railway and Commerce Member of the Government of India, paid a visit to the Kargali and Bokaro Joint Collicries.

Mr. Jagat Narain Lal, Parliamentary Secretary to the Revenue Minister, Bihar, visited the Jharia coalfield in November to make preliminary enquiries into labour conditions in mines. On 25th November he inspected the underground workings in a coal mine and on the 26th November he attended a meeting of representatives of owners and labour.

OFFICIAL DUTIES, 1937.

Dr. D. Penman was Chief Inspector of Mines. He was on leave from 13th May to 12th November.

Mr. W. Kirby, Inspector, No. 1 Circle, was on leave up to 26th March and officiated as Chief Inspector of Mines from 13th May to 12th November.

Mr G S Cameroa Inspector of Mines held charge of No 2 Circle throughout the year

Mr N Birriclough Inspector of Mines was on deputation to the Coul Mining Committee up to the 10th Apid and half charge of No 1 Circle from 13th May to 12th November

Mr II M Mitra Llectric Inspector of Mines was on leave from 14th June to 31st July

Mr N G Chatterjee Jumor Inspector of Mines, officiated as Impector up to 26th March vice Mr Kirby granted leave

Mr H K Chatterjee Junior Inspector of Mines was on duty throughout the year

Mr A Young Junior Inspector of Mines officiated as Inspector up to 5th April vice Mr N Birrachough deguted to the Coal Vinning Committee and was on leave from the 6th April to 21st October

Mr S S Growal Assistant Inspector of Mines, was promoted to be a Junior Inspector from 2nd March

Mr 7 S Chopra Assistant Inspector of Mines was on leave from the 23rd January to 6th February

Mr G S Jabbi was a pointed to be an Assistant Inspector from the 5th March vice Mr Grewal promoted to be Junior Inspector and was on duty till the ead of the year

The number of coal mines worked during the year was 601 which is 100 more than in the previous year. The number of metalliferous (includ ag stone etc.) mines at work was 1321 as compared with 140° in 1936

During the year 1 230 mines were inspected many of them bong inspected several times 3 246 separate inspections were made. The cause and circumstances of nearly all fatal accidents and serious accidents of importance and all complaints of breaches of regulations and rules were investigated. Many inspections were made at the avviation of mine owners Superintendents and Managers desirous of obtuning advice on safety matters. In the major coalields a large, proport on of the time of the Inspectors is occupied in myestigating cases of actual or threstened damage to dwellings and roads by reason of the underground working, of coal mines in dealing with underground fires and in examining protective works against the risk of unundation. In addition, a large number of inspections of the sanitary conditions at mines were made by medical officers as Ex officio. Inspectors of Mines.

Orders were issued and withdrawn as follows -

Sect on Regulat on or Rules	O le s	O de s w thdrawn
Under Sect on 19 (1)	2	4
Under Sect on 19 (2)	44	14
Under Section 19 (1A)	50	2

Exemptions, partial or complete, and permissions were granted and withdrawn as follows:—

Regulation.					Number of ource.	Number withdrawn.
Under Coal Mines Regulation 53		•	•	•	4	•
Under Cosl Mines Regulation 76		•			2	-
Under Ceal Mines Regulation 89					1	
Under Coal Mines Regulation 116					ı	1
Under Coal Mines Regulation 123					1	2
Under Coal Mines Regulation 136					1	
Under Temporary Coal Mines Regul	latio.	n 13 (1)			3	
Under Supplementary Temporary C	Conl	Minea	Reg	uln-	3	****
Under Metalliferous Mines Regulation	n 74	١.			1	****

Information was received of twelve outbreaks of fire underground, eight of which were new occurrences and four from old fire areas.

The number of original cases under the Land Acquisition (Mines) Act, 1885, at the end of 1937 stood at 735, thirteen of which were cases dealt with during the year. There were seventeen applications of modifications of restrictions and two complaints of violations of restrictions, all of which were dealt with. The Act applies to Bengal and Bihar and Orissa only. In other provinces where Government owns the minerals Local Governments were advised as to the restrictions necessary in cases where mine owners sought permission to work minerals beneath railways, villages, etc.

I have the honour to be, Sir.

Your most obedient servant,

W. KIRBY,

Chief Inspector of Mines in India.





APPENDIX L Statistics of Manes and Minerals.

Table No. 1.

APPEN

STATISTICS OF MINES

Number of workers and output of minerals during the

									Average	number o
,		 		~~~		Under	ground.			
Province.	District and Mineral field.				Maj	es.				and
	l,	Total Output,	Orermen and Siriars,	Coal-cutters.	Londers.	Other skilled labour,	Other unskilled Inboar,	Total Males.	Fomales,	Total Males Females.
		Tons							_	C
(Ebasi and Juintia Hills .	3,735	4	10	5	1	1	21	***	21
Assam	Lakhimpur, Makum Coalfield	218,455	73	218	311	294	315	1,211	***	1,211
Į.	Naga Hills, Nazira	22,427	10	40	28	40	59	186		180
	Total .	243,650	87	268	344	344	375	1,418	<i></i>	1,419
	Quetta-Pishin, Bor Range	4,362	7	46	54	1	,.,	108		108
Baluchistau {	Coalfield. Sibi, Khost Coalfield	6,262	10	52	72	Б	3	142	•••	143
	Total .	10,624	17	18	126	ε	3	250	•••	250
(Bankura Raniganj Coalûeld	1,713	2	7	4	***	3	16		16
Bengal.	Birbbuo " "	2,054	1	11	14	1	2	29		29
{	Burdwan ,, ,,	0,524,053	894	14,016	6,660	3,048	7,532	33,047	1,352	34,399
	Total .	6,527,820	897	14,034	6,687	3,947	7,527	33,093	1,352	34,444
	Maubhum-					000				0.010
	Raniganj Coalfield (part	574,397 0,479,775	111	1,611	591 10,870	396 5,021	793 8,084	3,502 41,058	117	3,619 42,610
j	Hazaribagh-	,			1			·		
Bibar	Jharia Coalfield (part of)	· •	16	209	115 625	36 236	38	413	10	423 2,530
ınını	Bokaro ,,	2,309,1 7 0 674,794	60 148	916	658	198	632	3,445 4,575	148	4,723
]	Karanpura ,	519,162	24	449	223	153	217	1,086	45	1,111
l.	Banchi— Karanpara Coalfield (part of)	15,166	3	34	28	11	12	88	3	91
				1						

DIX I.

AND MINERALS

No 1.

year 1937 at mines under the Indian Mines Act.

persons employed daily in and about the mines

j			fare	Sur			pq.			rs .	Working	Open			
	F			les	M		poso,					falce)		
Grand Total,	Total Males Females.	Femsles	Total Males	Onekilled labour	Erilled labour	Clyrical and supervising eta f	Total Indeprend Open workings.	Total Makes and Famal a	Pepales	Total Males	Other nestiffed	Other skil.ed Jebour	Lordera	Coal-enters	Overmen and Sirdave
							_		, !		1				A.L.
	19	10		5	1	2	า				1	-		-	
177	96	147	804	181	187	45	1 284	23	8	18			*	3	1
3,01	650	117	493	228	204	-12 81	1 411	23	-	13	_			-=-	_,
l			-	-		•			'-						_
11	n		11	8	,	1	168 142				_			-	_
21	n	-					250	-				-	 		
-	-				_					_	-				
4	13		12	1	9		22	16	4	12	3	-		7	2
50-90	10,168	4 540	11 528	6 603	2 743	1 574	34 927	478	122	305	174	23	17	118	15
B1 01	16,189	4 543	11 640	e 8/35	3 263	1 5*8	34 885	414	116	316	137	22	1	128	17
5 94	1,793	613	1 179	693	419	200	4149	590	169	311	112	43	30	145	11
73 40	24,700	6 Eb3	17 617	11 281	4 530	000	43 503	5 093	1 506	3 548	1 317	271	601	1 085	127
3 00	441	128	313	183	67	89	863	198	١.١	93	25	20	1	62	,
11 71	2 470	365	* 105	1 379	632	253	9 240	6 710	210	4 500	895	254	854	2 599	48
Ø 16	1 426	478	050	700	246	89	4739	20	3	23		2	1 1	1	E
3 320	791	149	642	275	202	es	2 629	1 418	307	1 117	449	238	78	346	1
179	70	22	48	34	10	9	196	13	3	11	1	1	3		1

APPEN

Table

STATISTICS OF MINES

Number of workers and output of minerals during the

		Nur	nber of	worke	rs and o	output	of min	erais (luring the
					1	Average 1	number o	f perso	ns employed
					U:	ndergrou	nd.		
Province.	District and Mineral field.	_			Males.		,_,,,	1	puru
210111100	Mineral neid.	Total Output.	Foremou and Mates.	Minors.	Other skilled labour.	Other nuskilled labour.	Total Malea.	Females,	Total Males and Females.
		Tous						CH	ROMITE
·	Quetta Pishin .	45	•••	•••					•••
Baluchistan {	2hcl · ·	27,164	4	106			110		110
•	Total .	27,209	4	106			110		110
Bihar	Singhbhum	7,678							
Bombay	Ratangiri	500				•••			
	Grand Total (Chromite Ore) for 1937.	35,387	4	106	***	•••	110	.,.	110
,, ,	Grand Total of preceding year.	28,142	3	45	•••		48		48
	Difference	+7,245	+1	+61	<i>.</i>	•••	+62		+62
		Tons						c	OPPER
Binar	Singhbhum .	871,4 58	9	443		1,165	1,617		1,617
	Total of preceding year.	357,194	3	417		1,102	1,522		1,522
	Difference	+14,264	+6	+26		+63	+95		+ 95

DIX 1-contd.

AND MINERALS-contd

No. 1-contd.

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		0	pen wo	rkings			pud .			Sur	face		- {	
		Malos				and .	nge nge		Ma	les.			Pug	
and Mares	Mmere	Other skilled labour	unskilled labour	Total Malus	Females	Total Males and Females	Total Underground and Open workings	Clencal and supervis ing staff	Skilled Islour	Unskill e d labour	Total Males	Females	Total Males : Females	Grand Total
RE]			[_]					<u> </u>	\Box		
1	12	Ì	<u> </u>	13		13	13			1		Ì		
10	202	2	15	220		229	239	4	4	156	164		161	80
11	214	2	15	212		212	352	4	4	1,6	161		164	0
41	398	23	12	474	404	808	898	13	8	5	26	11	37	90
1		_ r		14	4	17	17	1		-	1		1	1
53	612	37	27	729	428	1 107	1 267	18	12	161	191	tı	202	11 46
5 \$	52"	78	21	709	391	1 103	1 151	11	5	119	125	2	160	3 31
-1	+.6	-41	+6	+20	+31	+54	+116	+7	+7	+42	+56	-14	+43	+10
ORE.	-	-						-		<u> </u>				_
URE	1						1 617	53	303	838	1 193	402	1 595	3 21
							1 523	39	245	679	96ь	300	1 356	28
-	1	-	-				+95	+13		+159	+ 227	+12	+239	+33

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

			1001 01			output			uuimg oo
	***				1	lvorago i	umbor o	f perso	ns employe
					Į	Judergro	und,		
Frovince.	District and Mineral field.			<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	Males.		·	Ī	grad ,
	minoral gold.	Total Ontput	Foremen and Matas.	Minors.	Other skilled labour	Othor unakillod labour.	Total Malos.	Fornalcs.	Total Malos o
	1	Cwt							MI
	Bhagalpur .	923	3	63	1	10	77		77
	Gaya	20,055	84	1,255	304	. 1,203	2,876		2,876
Bihar	Hazaribagh	61,108	768	6,816	1,252	2,735	11,573		11,573
	Manbhum	246	4	18	6	22	50		50
	Monghyr .	3,616	31	224	53	194	502		502
	Total .	65,978	890	S,40S	1,616	4,161	15,078		15,078
	Nelloro*	15,647	55	570	562	406	1,593	***	1,593
Madras	Nilgiris	121	2	18	3	10	32		82
	l'otai .	15,766	57	558	564	416	1,625	•••	1,625
			-						4)
Rajputana	Ajmer-Morwara* .	1,895	14	163	12	72	281	***	281
	Grand Total (Mica) for 1937.	103,641	961	9,179	2,192	4,652	16,984	•••	16,984
	Grand Total of preceding year.	86,504	779	9,053	1,575	4,443	15,850	***	15,850
	Difference	+17,137	+182	+126	+617	+209	+1,184		+1,134

^{*28,863} cwt. of waste mion useful for

DIX I-contd.

AND MINERALS-contd.

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines

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	_	Of	en wo	kings			PE)		Sa	rface			ļ
		Male	,		<u> </u>	Page 1	agu ngs	-	3.1	ales		1	pus	
Foremen	Minters	Other akilled labour	Other anshilfed labour	Total Malcs	Formles	Total Males and Females	Total Underground and Of en workings	Clerical and auperate ing staff	Skilled labour	Unskilled	Cotal Males	Females	Total Males	Grand Total
CA					1					[1		ĺ	
6	37		53	96	41	137	214	7	ĺ	1	[7	2	9	228
14	411	74	204	703	20	732	3 006	195	310	73	579	28	663	4,271
194	2,139	182	370	8 085	149	3 234	14 807	575	757	628	1,969	406	2,374	17,151
20	26	18	49	111	51	162	212	12	4	20	45	10	54	200
43	241	73	219	\$66	ေ	635	1,137	*8	183	27	268	127	395	1 532
267	2 834	315	1,015	4 561	339	4 500	19,978	847	1,251	764	2,865	630	3,495	23,473
29	202	278	334	843	757	1,600	3,193 32	132	2 ⁻⁹	304	77.5 15	9~7 1	1,702 16	4,5.0 41
29	203	278	334	813	757	1,600	3,210	133	20	21 -	- D'	9~-	1,714	450
30	343	19	7	401	42	443	724	E	12	=	1,5	17	: :	·,
3_6	3,401	642	1 433	5 805	1,133	6 902	===1	24	5-	1 % T	2.72	TC:	-22 2	50
216	2,222	566	835	3,531	501	.=	e ec	}	2.5	572	<u>-</u>	:3° '		
+112	+1,179	+82	+601	+1,274	-24	-1.7-		<u>-</u> [-	L	-57			:	-

plitting was also raised

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

		21411	IDEL OL	WOINCE	s and o	uipui o	ı mme	iais u	uning one			
					A	verage m	ımber of	person	s employed			
			Underground.									
Province.	District and Mineral field.				Males.				nud			
		Total Output.	Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.	Fomales.	Total Males und Females.			
[Jhelum	Tons. 123,197	29	415	ડર	149	633	6	SA 644			
Panjab	Minuwali	14,392		98	,,,	•••	. 98		98			
Į	Shahpur	26,224	5	81	12	37	135	9	144			
	Grand Total (Salt) for 1937.	163,813	34	591	57	186	871	15	\$66			
	Grand Total of preceding year.	151,523	34	600	56	206	896	32	928			
*	Difference	+12,290	***	6	+1	20	— 25	17	-42			
Madras .	Salem	Tons. 32,782	•••			***	***]	MAGNE			
	Total of preceding year.	12,966					•••					
,	Difference	+10,816		***			•••	.,,				

DIX I-contd

AND MINERALS-contd

No. 1-contd.

year 1987 at mines under the Indian Mines Act-contd

daily in and about the mines

		Oį	en wor	knuge			Pnd 1			Su	face			1
		Males	•			Pud .	Tround		1	Maler			pnw .	
Foremen and Matos	Miners	Other skilled labour	Other unelalled labour	Total Males	Females	Total Males and Females	Total Underground and Open workings	Clerical and superme	Skilled	Unskilled	Total Males	Females	Total Males and Females	Grand Total
LT		11		12	_	12	656	1	83	286	320		320	976
			[]				99	ĺ -	ĺ	68			68	168
					-	1	144	1	9	57	67		67	211
1		11		12		13	898	2	93	\$61	387		455	1 853
1	10		225	236		236	1 164	1	77	147	157	1	226	1 3,0
-	-10	+11	-225	-2°4		-223	266	+1	+22	+314	+ 230	1	+229	-37
SITE		1												
17	332		721	1 070	310	1 380	1 380	19	83	74	1"6	8	184	1,584
16	230		490	743	147	\$89	889	18	108	10	136	9	145	1 034
+1	+96	-	+231	+825	+163	+491	+491	+1	-25	+64	÷ 4 0	-1	+39	+550

DIX I-contd.

AND MINERALS-contd

No. 1-contd.

year 1937 at mines under the Indian Mines Act-could

		O	ец жог	kinga			Pue			St	rface			ļ
		Male	,			Pug	STOOP BO		M	rjes			pus.	٠,
Foromen and Vatos	Miners	Other Sulled Subour	Oti or wnskilled labour	Total Malos	Fornafes	Total Males and Females	Total Underground and Open workings	Clerical and supervis	Skilled	Unelilled labour	Total Males	Fer ales	Total Males and Funales	Grand Total,
rite														
1	7	9	15	35	18	53	\$3	[1	ĺ	ĺ	1		1	54
2	4			6	6	12	12	2		24	28	58	63	74
3	11	9	18	11	24	65	65	3		24	27	86	63	128
1	10		31	47	50	103	137	1		17	18	20	48	180
_		_	,		-	_	6	_		_		S	2	- 6
						5	8						_ }	8
							16					2	2	16
		3,1	2	32		32	49		36	ő	41	-	41	90
4	26	39	51	120	80	200	265	4	30	46	88	68	154	419
5	3>	55	76	174	78	2,2	318	3	51	21	75	8	83	401
-1	-13	- 16	-20	-54	+2	-52	-53	+1	-15	+25	+11	+60	+71	+18
TE 4	63	18	28	113	5	118	118		_					115

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

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	T. Al	<i>ሮ</i> ልም		and the second s					
			-			**** ~		-	~ -
	Grav 1 Teral (Store) for 1977.	5,41							•••
	Oras Pleases per cell presses.	7,025					,		
	Army that thought my					-			-
	Differen	+.91		,			•	-	
~	THE RESERVE THE PROPERTY OF THE PARTY OF THE	lers							LIME
Bilar	Stalalad .	ខរ៦ ៤រក្	<i>.</i> .			***	••	4	•••
Central Pro- {	Bilaspar Jubbulpore	93,210 495,788	879 874	*	***		•		\$ # 4
	Total .	550,695				•••	***		•••
Madras	Koimbatore .	126,131	•••	•••					

DIX I-contâ.

AND MINERALS-contd

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines

			O	pen wo	kings			3 and	Ī		Su	rfaco				-
			Male				and a	group 82u		3!1	lca			Fig	ر ا	
Peromon	and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males	Females	Total Mates	Total Underground and Open workings	Clerical and supervis ing staff	Shilled	Unskilled	Total Males	Females	Total Males and Females	Grand Total,	
T	E	onlå	ĺ	}												•
ī	11	81	33	ಜ	106		100	109	1		-	8	- 1	3	103	
1	53	111	76	122	362		363	36,	7	2	2	11	_ .	11	373	
	61	149	100	167	462		4.2	462	8	,		<u>,,, , , , , , , , , , , , , , , , , , </u>	-	14	60	
	въ	200	197	175	\$75	5	590	590	8	1	1	"		14	894	
	70	17>	136	163	541	7	348	548	-	_		-		3/ .	<u></u> 1	
	-2	+33	_9	+12	+34	-2	+82	,=	·/-	-:	•41		-	u	1	
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1	108	559	128	597	1 39	35	1. 12		r.	221	- 1	=,[s"	**		_
ĺ	1.,	149	2 2	31	450	100	45	, 1	.2	*,	-[≥ 1	-		994	4
	100	337	120	8** 1	175/2	15 15	- 44.		==	ī.	= :	, `	-	11	91 60	
	1 5	4 9	397	1 20-	10/201	1	,	= '		-/=	:	_			91 60 69 25 5	
	2			10.	14/-	>,	`			*		-		41	250	1
'		•										Par.			•	

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

					Λ	verage 1	number of	person	is employe				
			Underground,										
Province.	District and Mineral field,	į,			Males.				and				
		Total Ontput.	Foremen nail Mates.	Minera.	Other skill-	Other unskilled labour.	Total Males.	Fomales.	Total Males and Fomales.				
		Tons							LIME				
Punjah . {	Attock Jhelum Mianwali .	221,132 5,67 25,320		···				 	•••				
	Total .	250,129											
	Grand Total (Lame- stone) for 1937	1,318,698						•••	***				
	Grand Total of preceding year	1,007,957							***				
	Difference .	+ 310,611							411				
					ST	ONE (HIE	LY IG	NEOUS				
Beugal .	Birbhum .	Tons. 88,112					,		•				
{	Gaya .	33,495			٠.				***				
Bihar	Monghyr . Sonthal Parganas .	37,055 337,108				•••			•••				
•	Shahubad	43,579	***			•••			***				
· ·	Singhbhum .	32,555							***				
	Total .	488,792		•••			•••						
Bombny .	Bombay Bombay Suburban Kura Surat	163,218 18,930 2 ,850	***				•••						
Į.	Thana	\$5.268 22.3:6	4	<u></u>			_::	<u></u> \					
	Total .	310,602											

DIX I-contd.

AND MINERALS-contd.

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

lady in and about the mines

dady m	and al	out th	o mine											
		Op	en work	ing#			d and			Su	face			
		Males				Pig	ETOUD DES		Male	16			Pas	
Foremon and Mates	Чист	other skilled labour	Other unskilled Jabour	Total Matos	Formates	Total Males and Females	Total Underground and Open workings	Clevical and euphifus ing stell	Stilled	Unskilled	Total Meler	Females	Total Males a Females	Grand Total
STOP	E-co	nid												
1 5	20 20	8	237 2 200	384 41 205	7	264 41 214	354 41 212	3	4		-		7	85; 45 212
11	60	11	-39	630	7,	637	637	3	4		7		7	611
236 277	1,107	536 493	2 505	\$ 384 8,916	2 640	6 510	7,024 6 710	234 174	253 258	693	1,186 674	239 199	1,425 873	8,449 7 583
+ 9	+10	+43	+ 876	+408	154	+314	+314	+60	+1	+401	+512	+40	+852	+ 666
ROC	E)			1	Ì	1	ľ		ĺ	İ	1	ĺ		
1	239	3	81	.325	İ	32 <i>ა</i>	325	32	54	263	319	132	481	806
13	233	154	10	407	165	57.6	673	-	_3	_	-3		3	\$75
4		145	1	149	63	231	231	Į ī	3	7	11		11	312
79	774	431	200	1,574 224	246	1 829	1 820	97	187	405	689	239	928	2,748
12	189	21	224 278	503	53 552	277 856	277 855	2	95	10	47	۰	52	907
168	1 193	751	802	2,857	898	3,755	3 755	100	228	423	750	214	99,	4,719
2 2 11	10 22	\$5 63	34	323 34 1 300 118	216 69	\$22 34 14 516 187	323 34 12 516 187	26 2 5 7 6	3 16 4	21 42 6) 16	\$2 69 8) 80	41	91 60 69 22 5	413 94 81 541 192
20	169	118	479	786	285	1,071	1 671	45	23	111	209	41	250	1 921

APPEN

STATISTICS OF MINEO,

TATIBILION		
	Table	

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Number of workers and output of minerals during the
workers and output of he amployed
Number of workers and output of horsons employed
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Tockal Melos. Tockal Melos. Tockal Melos and Formales a
District and Treat the Court of
Province. District and Minoral field. Total Output Total output Tota
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STONE (CHIEFLY IGNEOUS
Tons
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Central .
Total 15,753 "
Total
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Enst Godar 53,370
redras . Guntur 7,199
Wishing The state of the state
Total . 129,400
Total
61,074
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) whente
Total . 69,523
30,127
Sukkur
Sindh

DIX 1-contd.

AND MINERALS-contd

No. 1-contd

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines

[0	pen wo	rkings			3 and			80	rface			
		Males				and a	riges Tuga		Mal	e#			P	
Foremen and Matos	Miners	Other stilled labour	Other nutalled lalour	Total	Females,	Total Mates Females	Total Underground and Open workings	Clencal and supervisi	ckilled labour	Unskilled	Total Males	Females	Total Males Females	Grand Total
ROCI	K)—con	ta.									,			
1 1	1	8	80	83	35	68	53	1			1		1	89
3			100	102	100	°02	202	1	-		1		1	203
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2		3	150	153	135	290	290	2			2		2	292
-	_	_	1—					<u> </u>	<u> </u>		_	_		
-	,	449	22	471	238	809	809	19		82	101	85	156	985
	1	62		62	16	^8	75		1					78
27	100	193	47	197	17	214	214		2	13	15	5	20	234
				100		100	100	5	l	50	50	10	6,	165
27	100	634	69	830	371	1 201	1,201	24	2	14,	171	70	241	1 442
5	68		106	179	7	186	166	3	5	16	-04		24	210
6	23	7	26	63		62	6,	3	6	26	31	1	34	96
-	-	_						}	<u> </u>	_	<u> </u>	_		
11	91	7	132	241	7	248	248	5	11	42	58		58	6
9	61	38		111	22	133	133	1		1	2	-	2	135

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

-									during th
					۱,	verage n	umber o	perso	is employed
					U	ndergrou	ınd.		
Province.	District and Mineral field.				Males.				and
,		Total Outpat.	Foremen and Antox	Minora.	Other skilled Inbour.	Other unskilled labour.	Total Males.	Females.	Total Males and Females.
		Tous.					. st	ONE	(CHIEFL'
(Allahabad .	52,819						}	
United Pro-	Bands	2,159							
į	Jhansi	18,615	••						
	Total .	73,057	•••						•
	-							-	
	Grand Total (Stone) for 1937.	1,205,756							,
	Grand Total of preceding year.	1,189,562				•••	•••		
	Difference	+16,191	•••						
Bihar	Shahal.ad	Tons. 39,414	•••						SAND
	Total of preceding year.	33,734		•••				,	
	Difference	+5,680							

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DIX 1-contd.

AND MINERALS-contd.

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contil

Open werkings

daily in and about the mines

l							1 =	ł			1120			1
		Males		1		₽u q	uno.i		M	alte		1	Pur	
Foremen and Maton	Winors	Other skille i fahent	Other usakilled Jahonr	Total Mulcs	Females	Total Males Females	Total Underground Open workings	Clerical and appertia	Skillad Jabour	United	Zotal Males	Ffmales	Total Males	Oran I Total
IONE	ous i	iock:)eone	4										
17	4	70	370	461	153	€1G	616	16)		12	}	. 11	6.77
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3	182			191	20	211	211	_ 6	36	47	91	L7	149	329
26	180	73	C8°	6,7	196	653	63	16	39	43	103	57	160	1 013
204	141	1 632	, 69,	5 772	1 001	7 676	7,5*6	22.	3.7	1,002	1 611	311	2 188	20.064
123	1276	1,290	1,281	6 970	1 102	8 272	8,2~2	207	511	1 993	1535	321	2,302	10 631
+81	-2,235	+342	+814	-938	+692	-32.	-*45	+18	-1J2	20	-194	+ 20)74	-570
ero	N Te				- 1	- 1	[1			
12	43	23	51	198	57	125	150	-	-6	15	43	D	52	247
14	48	61	60	203	41	248	211	1	ı	26	28	10	38	252
2	-6	-23	29	-65	+16	-43	-49	-1	+27	-11	+15	1	+14	-25

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

			[ons employed
					,,,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Undergro			
Province.	District and Mineral field.				Malos	•		1	puu
		Total Output.	Foremen and Mates.	Minors.	Other skilled labour.	Other unskilled lubour.	Total Malea.	Females.	Total Males and Females.
		Ton9		· · · · · · · · · · · · · · · · · · ·					GRA
Itihar	Singhbhum	13,936						Figu	res included
Bombay	Thans	395						Fign	res included
Madras	Chingleput	25,€03						Fign	res included
	Grand Total(Gravel) for 1937. Grand Total of preceding year.	39,9J1 21,378						Fignr	es included
	Difference	+ 15,556							
		Tons.			Terra responsable				MU
Bombay	Bombay Suburban. Thana	1,700 26,382	}					Figur	es included
	Total .	28,082						Figu	es included
United Pro-	Jhansi	2,383						Figur	es inclu ded
	Grand Total (Murum) for 1937.	30,165		T	···				
	Grand Total of proceding year.	18,653							
	Difference	+11,812							
		Tong.							MUSCO
Rajputana .	Ajmer-Merwara .	7							
	Total of preceding year.	21				.,.	•••		
	Difference .	-14,	***						

DIX I-contd.

AND MINFRALS-contd

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines	5										
Open work	nngu			Ping			Sur	face			-
Males			pue :	ground		Ma	les			pu4	
Foremen and Matos Miners Other skilled Iabour unakkiled Iabour	Total Males	Females	Total Males and Females	Total Underground and Open workings	Clerical and suparrya far staff	Skil'ed labour	Unskilled	Total Males	Famalos	Total Males and Females	Grand Total
VEL in those for Stone in those for Stone											
in those for Stone			_		_	<u>-</u>	-		-		
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tu those for Stone						4	-	_ -	_		
in those for Stone		_		-	-	-	= -			-1	
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1 6	7	=	7	1	-	-	- '				

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

						Average n	nmber o	f perso	ns employ
					υ	udergrou	nd.		
Province.	District and Mineral field.				Males.			1	and
		Total Output.	Foremen and Mates.	Miners.	Other skilled lubour	Other unskilled labour.	Total Males.	Fomalos.	Total Males and Females.
_		Tons					•	-	FIRE
Bengal	Burdwan .	7,916		 					•••
Bihar .	Manbhum	4,280					•••		***
Coutral Pro- vinces.	Jubbulpore	21,106	•··· -	 _					
		Tons.							
	Grand Total (Fire- clay) for 1937.	33,332					•••		
	Grand Total of pre- ceding year.	22,817	•••				•••	:	
	Difference .	+10,515		•••		•••			
		Tons.							CHINA
·	Bhagaipur	1,227	4	1გ		39	58		58
Bihar {	Singhbhum .	6,180					.,.		•••
	Total .	7,407	4	15		39	58		58
Delhi	Delhi	3,538	2	31	9	6	48	··	48
Madras	Nellore	79							
	Grand Total (China	11,02\$	6	16	9	45	106	{·	106
	Clay) for 1937. Grand Total of preceding year.	14,268	4	33	•••	52	89		89
	Difference	-3,214	+2	+13	+9	-7	+17		·+17

DIX I-contd.

AND MINERALS-contd.

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines

		OI	on wor	kings			Pu I			Sar	face			
		Males				7	ground 1028		Ma	len			And	Grand
Foremen	Minera	Other skilled labour	Other unskilled labozr	Total Males	Females	Total Males and Females	Total Underground and Open workings	Clerical and aupervis tog staff	Skilled	Unskilled	Total Males	Females	Total Males and Females	Grand Total
CLAY	-	_				_								
2	60	8		70	38	106	168	3		. 0	23	15	88	116
1	83	23	10	67	18	83	85							85
6	5		149	160	152	312	312	3	_	26	29		29	841
9	93	31	159	297	2116	503	505	6		46	52	15	67	572
8	4		140	1.0	156	311	311	3		26	39	2	31	842
+3	+91	+31	+14	+142	+59	+ 191	+194	+3		+20	+23	+13	+36	+230
CLAY.														
	4	1	37	41	19	60	11ь] 1	,			11	12	13)
16	86	3	118	223	314	567	567	28	25	127	180	190	375	943
16	90	3	105	261	363	F27	685	29	25	127	160	206	387	1 73
	21		-	21		21	69							63
	8	2		10	2	12	12			-		1	1	13
16	19	5	150	295	365	6G0	766	29	25	127	181	207	388	1,15%
22	72	20	144	258	276	531	623	22	31	140	200	184	384	1 007
6	+47	-10	+11	+87	+89	+125	+143	-	-6	13	-19	+23	+4	+47

APPEN

STATISTICS OF MINES

Table

Number of workers and output of numerals during the

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					t:	. 1,00 27 . 5.	- 3		
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DIX I-contd.

AND MINERALS-contd

No. 1-contd.

year 1937 at mines under the Indian Mines Act-contd

daily in and about the mines

		Ор	en wor	kunge			and i			Su	rface			
		Males				Pug W	group		Ma	les			and .	Grand Totel
F remen	Vinera	Other skilled Jabo 17	Other nnekilled labour	Total Males	Females	Total Malen and Femalen	Total Underground and Open workings	Clorical and appertua	Shilled Labour	Unskilled	Total	Females	Total Males	Totel
AY.	38		3	50	22	72	72		3		, s		8	75
for La	meston	te.				}								
3	38	16	9	50	22 16	72 32	72		3		3		3	75 85
+3	+88	-16	+9	+34	+6	+40	+ 10						_	-±40
TES	28	15	30	78	71	149	149 6	5		11	16 2	10	16 12	163 18
	28	1.,	35	78 13	ฑ	149 13	150 18	5 2		13	18	10 8	28	183
	+28	+9	+28	+6.	+"1	+ 136	+137	+3		+11	+14	+2	+16	+1×3

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

			_	٠.		lví rago n	umber o	f person	as employe
					U	ndergrou	nd.		
Province	District and Minoral field.	نس			Males.				puu
	,	Total Orthat.	Formen and Mates.	Minore.	Other Hilled labour.	Other unskilled labour.	Total Males.	Femalos.	Total Males Females.
		Tons.							APA
Mortan .	Trickinopoly	166						Figur	es include
	Total of preced- ing year,	125	•••	";	****	,			
	Difference .	1 85	***						•••
		 Cnt.							ASBES
Rapputana .	Almer-Metwata .	Đ		.					
Central Provin	(Chanda .	Ton*, 63]	4			5	Figure	OCH 5 5 included
fre 4.	(Jubbulpur	40							5
49	Grand total (Ochro) for 1937. Grand total of proceeding year.	70 112		4			5 7	: ;	7
n	Difference .	+12	+1	-3			_2 2		-2
	ar and are surprised to the surprised to	Tons.							KAO
Control Provins	Jubbulporo	181							
	Total of preceding year.				•••			 	
	Paterence .	+181							٠٠

DIX I-conti.

AND MINERALS-contd

No. 1-contd

vear 1937 at mines under the Indian Mines Act—contil

		Op	en work	ings			1 2			<n< th=""><th>face</th><th></th><th></th><th></th></n<>	face			
		Males				70	and and		Ma	les]	Pur	Ī.,
Foremen and Mates	Yiners	Other "killed labour	Other unskilled labour	Total Vales	Females	Total Males and Pamales	Total Underground and Open workings	Clerical and super- vising staff	Skilled	Unkilled Inbour	Total Males	France	Total Males Females	Grand Tutal
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APPEN:

STATISTICS OF MINES

Table

Number of workers and only the following the

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	and the second				t.e.	Leuzywan.	đ.		
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respet.	Phelam	12,533					8	easen t	el labelus
eron a	Grand Total 1175-	ta,£13					Page		ante Anteriore estrante
*3;	Clean-1 Total of premodical proc	1,430		.				8 11	084
	lh@erev-k	* 6.ACE	,	-		-			
Hamley .	Kaltu.	Total 8 Sys							BAU
Central Permittees	latteljer	هِ مُنْدُرٍ و				•••	**	***	
	Total .	13,150			-				ajus
Majporana	Afmer-Merwara .	Torix		***			44V	***	ner
	Total of preceding	ÇQ	1		12	-	13	4-4	15
	Thillerence .	-72	1		-12		-13	-	-13

DIX I-contd.

AND MINERALS-contd,

No 1-contd

year 1937 at mines under the Indian Mines Act-contd

duly i	s and a	bout tl	o mine	5										
		01	heir 401	kings			Pau I			Sa1	face			
		Males				nnd n	egur pagar		Ma	lea			pro	_
Foremen	Mingre	Other rkilled labour	Other unskilled labour	Total Males	Femalos	Total Males and Fermics	Total Underground and Open workings	C erical and supervie 10g staff	killed labour	Unel Red	Total Males	Femalos	Total Males and Females	Grand Total
NITE														
3			82	ప్రి	62	117	117	1		20	21		21	138
sum			19	19	23	41	41	1	5	11	17	35	53	94
those f	or Sali							<u> </u>	_			_	l	
			19	19	22	41	41	1	5	11	17	36	53	94
			12	12	11	23	23	1	٠	9	14	119	133	106
			+7	+7	+11	+13	+18		+1	+2	+3	-83	-80	-63
XITF	123	3		128	51	182	183		1	9	10	1	11	193
5		17	34	56	102	l _a 8	158	2		11	13		13	171
7	123	20	3.1	184	156	310	340	2	1	20	23	1	24	864
YL,	35	1		39	2	41	41	2	1		3		3	44
4	вa			69		69	89		2		8	2	4	£6
-1	-30	+1		-30	+2	28	-41	+3	-1		+1	-2	-1	3

APPEN

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

		11(1111)							
						Average	number	of perso	ns employe
						Undergro	ound.		
Province.	District and Mineral field.			· · · · · · · · · · · · · · · · · · ·	Mal	es.		1	pue
		Total Output.	Foremen and Mates.	Miners.	Other skilled	Other unskilled	Total Males.	Femules.	Total Males and Females.
		Tons.							FELS
Rajputana	. Ajmer-Merwara .	268							
	Total of preceding year.	686				_			
	Difference .	-418							
Central Provinces.	Jubbulpore	Tons.						Figur	FULLERS es included
Тя,,	Vigagapatam	Tons.							GRAPH
	Total of preceding year.	237					,		
	Difference .	-227							
Bihar	Monghyr	Cwts.	2	4	2	2	10		TANTA
-	Grand Total (Metal- liferous Mines) for 1937.		1,048	10,947	2,234	6,232	20,511	15	20,526
	Grand Total of preceding year.	•••	966	13,192	2,344	8,418	24,920	32	24,952
	Difference .		+82	-2,245	-60	-2,186	-4,409	-17	-4,426
	Grand Total (All Mincrals) for 1937. Grand Total of preceding year.		•••				118,920 123,423	3,887 7,301	122,807 130,724
-	Difference .						-4,503	-3,414	-7,917

DIX I-contd

AND MINERALS-concld

No 1-concld.

year 1936 at mines under the Indian Mines Act-conel l

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------	------	-----	-------	-------	----

!			Open w	ork nga			d and			Sur	face			
		Males				and	rgroup ng*		Mal	09	_ [Į	pur c	-
Fremen a d Mates	М пега	Other skilled labour	Other nusk Hed Jabour	Total Males	Females	Total Valce : Females	Total Underground and Open work ngs	Buresland transport	Sk Ded labour	Unsk Red	Total Males	Females	Total Males Fema es	Grand Total
PAR	10		12	45		23	2.		1		1		1	26
4		9	14	27		2	27	1			1		1	78
1	+10	-9	-3			_2		-7	+1	-				°
EART in thos	H e for L	imento							-					
STI			,	2	5	7	7			9	2	5	7	14
	16	,	8	26	1	27	27	_	_				_	27
_	-16	"	-6	-"1	+4	- 20	-90		_	+2	+2	+5	+7	13
LITE	8	1		9	8	17	27	1	1	_	9		2	20
1 69	21 341	3 83°	10 .86	37 5°1	19 661	57 18°	7 708	2 007	3 643	7 62	13 981	5 720	19 001	98 709
1 357	°6 128	5 8°6	1197	45 238	15 123	69 9°1	E5 313	1 991	4 935	8 °31	1 59	6 106	∠1 3C3	166 6 6
+395	-1 787	004	-1,321	-7 71	+4,538	-319	-7 605	+10	-1 230	-706		-386	-2 362	-9 967 267 8.8
	_			48 268 52 109	1	7° 747 69 193	195 554					19 917 18 263	7 SO 5	267 8.8
				-3 851		+8 554	+4 (3	-	-		+974	+1,654	+2,625	7735

APPEN

Table

Statement of total mining population in Coal Mines in British India

	1	intente o			popun		Ovar 2			OH ZIIGI
				1	Cotal num	ber atter	iding wo	rk.		
Name of	Name of Coalfield or		Mn	les.			Fon	nales.		and
Province.	District	Under- ground.	Open work- ing	Surface.	Total.	Under- ground.	Open work- ing.	Surface.	Total,	Total Males Females.
	Nosi and Injutia.	Tons.		-10	79			54	54	133
Assam .	Makum	1,385	13	405	1,803		13	109	122	1,925
Ĺ	Nazira	301		169	470			<u></u>		470
	Total .	1,725	13	614	2,352		13	163	176	2,528
Baluchistan {	Sor Range .	45	2	•	47	•••				47
Ruthentstun (Khost	142		8	151					154
	Total .	187	6	8	201				•••	201
Eengal	Raniganj .	51,277	421	12,117	63,818		223	6,199	6,422	70,240
· (Ranigauj	6,648	456	1,950	9,084		341	1,075	1,416	10,500
Ì	Jharia	68,619	5,731	23,111	97,461		3,893	10,646	14,539	112,000
	Bokaro	3,790	6,894	2,345	13,029		3,945	685	4,630	17,659
Bihar	Giridih	5,301	22	779	6,102	•••	11	677	683	6,790
	Karanpura .	1 946	1,871	994	4,811		542	310	852	5,663
Į	Jainty	318		116	431			17	17	451
	Total -	66,622	14,974	29,325	130,921		8,732	13,410	22,142	153,063
	Betul	80		62	142			17	17	159
Central Provinces.	Wardha Valley	2,032		506	2,538			132	132	2,670
ŧ	Peuch Valley .	7,283	716	2,543	10.542		700	1,027		12,269
	Total .	9,395.	716	3,111	13,222		760	1,176	1,876	15,098
Orissa	Hingir Bampur	312		103	415			115	315	530
Paujab	Salt Range .	1,981	46	1,135	3,165			22	22	3,187
	Grand Total .	151,502	16,179	46,413	214,094		9,668	21,085	30,753	244 847

DIX I—contd

No 1-A.

on a day in the selected week in February 1938

		Tota	el number j	prevented (from attend	ng			
	Mal	es			Fem	lex		and a	
Underground	Op 11 work	quince	Total	Under ground.	Open work	Surface	Total	Total Males Fema vs	Grand Total
13		2,	39			18	18	56	189
963	11	13	1 016		, ,	75	67	103	2 008
85		43	197		[]		- 1	127	507
1 061	11	100	1 181		10	-3	85	1 º66	3 ^4
						I			47
									15.
 					}				*01
4 460	12	816	5 233		10	650	608	8 9 ₀ 9	76 199
802	30	84	916		21	3	74	-00	11 490
2 150	87	\$ 35	8 07*	1	53	237	350	3 402	115 402
193	1 264	259	1746		*91	28	79	2 4"5	20 131
3 990	s	136	4 13 1	}	5	103	103	4 2;	11 03
1 238	519	43	1,800	j	160	4	184	1 984	7 617
13		3	16)			i	16	467
8 686	1 903	1 090	11 651		9 0	4.5	1 415	13 199	166 199
10			10	 -	-	[10	163
75		10	8ა	1		6	6	91	7 7 61
896	39	141	1 076		~~6	59	B ₃	1 161	13 4.0
981	39	ləl	1 171		26	65	91	1 "6"	16 369
3		2	5	_				5	577
88		15	103					103	.39
15 284	190	2 183	19 437		1 013	1 202	2,257	27-41	3.5
					1	' '	,		~

APPEN

Table

Average hours worked per week in

					24.	verage no	(ULD))(incu ja	A TICCE I
						Undergrou	nd.		
Mineral Field	•			Overmen and Sirdars. Foremen and Mates.	Miners.	Londers.	Skilled Labour	Un- skilled Labour.	Fomales.
Jinaria Coalfield (Bihar) .	•	4	•	49	45	45	46	46	45
Raniganj " (Bengal) .	•	•	•	59	46	46	48	47	45
Giridih ,, (Bihar) .	•	•		42	42	40	46	46	44
Assam Conflields	•		•	47	46	48	46	48	•••
Panjab " · · ·	•			42	39	36	42	43	
Baluchistan,			•	35	36	37	40	36	
Pench Valley Coalfield (Center	al Pro	vince) .	50	48	49	48	50	49
Biliar Mica		•		45	45		47	46	
Madras Mica				47	47		47	47	
Central Provinces Manganese				49	4 S		49	49	
Central Provinces Limestone		•							
Bihar Iron									
Panjab Salt				38	43	}	43	41	23
Bihar China Clay	•	•		14	39			38	
Punjak Slate		•							
			Ì						
			- }	j			1.		

DIX I-contd.

No. 2. each important mining field during the year 1937

		pen workt	nge			ſ	Surfa	ce	
Overmen and Sirdars Forsmen and Mates	Miners	Loaders	Skilled Labour	Un skilled Labour	Females	Cler cal and Supervising Staff	Skilled Labour	Un skilled Labour	Female
49	47	46	47	45	46	5.3	٥٥	50	43
47	45	41	47	46	45	53	50	50	49
49	43	1	49	1	30	49	47	44	48
45	45	45	1	İ	42	49	50	50	48
43	41	10		48		6 3	46	46	48
				•		36	ı.	44	
52	52	51	52	52	51	53	52	52	51
46	45		45		40	47	47	49	47
48	45] "	46	45	47	46	48	46	46
48	46	1	47	46	4.	48	47	43	45
50	49)	40	59		49	50	49	47
49	49		49	49	49	50	50	50	5
84	54	}	1	"	•	51	46	47	"
46	47	1	45	46	46	46	46	46	45
40	40	1	41	41	10	48	48	45	*
1	1		*1	*1		***	4.5	95	
1		1		1					

APPEN

Table

Analysis of figures relating to

	ı	,	·				
					Coal.		
Province.	Coalfield.	Opening stock.	Raisings.	Total.	Despatches	Colliory consump tion.	
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Assum .	Khasi & Jaintia Hills. Makum	5,771 	2,735 218,459	8,506 218,488	6,869 204,100	1	2,528
Ĺ	Nazira	411	22,427	22,871	22,280	591	
Baluchistan .	Baluchistan	082	10,621	10,854	10,336		i
Bengal (and part of Bihar).	Rauiganj .	278,067	7,196,321	7,469,391	6,795,024	461,148	60,665
	[Jharia Bokaro	434,875 3,096	9,601,230 2,309,170	10,036,105 2,812,266	7,748,284 2,249,446	528,489 44,515	1,195,397
Bihar	{ Karanpura .	5,462	534,328	539,790	£06,636	15,588	
•	Giridih Jainty	143,512 7,433	674,794 47,490	818,306 54,923	728,553 45,764	29,607 5,448	
i	Botul	235	5,657	5,892	3,815	1,020	
Control Pro-	Pench Valley Wardha Valley	14,129 5,058	1,234,233 264,269	1,248,362 269,327	1,164,519 253,780	71,258 14.920	
Orissa	Hingir-Rampur .	1,026	47,127	48,153	40,944	4,936	,
Punjab	Salt Range	2,385	166,632	169,017	162,254	3,418	
	Total 1937	896,723	22,335,528	23,232,251	19,942,554	1,192,793	1,272,901

IX I-contd.

lo. 3.

ne output of Coul and Coke, 1937.

		}				Coke					
Coal des	Closing	Openi	ng stooks	Coke	made	Despa	tches	Collie	ry con	Clos.n	g stocks
tories	stocks	Hard	Soft	Hard	Soft	Hard	Soft	Hard	Soft	Hard	Soft
Tons	Form 1,637	Tons	Tons	Ton# 528	Tons	Tons 449	Tons	Tons	Tons	Tobs	Tons
	-										
	518	-							-		
	102,554	03	257	2 501	40 66G	2 741	39 743		327	149	883
1 848 521	£63 9 3		10 214	83 50 4	792 668	88 140	75 <i>6</i> 120		2 368		13 356
6 808	3 991	35	119	3 546	4 813	3 202	4 915	39	11	41	6
73 973	17 566 60 116	1	1		- 1	1			1	- 1	
	3 711								- 1		
	1 0.7	-								- -	
- 1	12,590	16	Ī	- 1	l		- 1	- 1		16	
	677				-					1).	
	2,2-3										
	3 315										
1 928 752	824 021	4 0a6	10 620	95,439	637,145	94 83a	ESD 781	5.3	z 706	4 107	14 275

Table No. 4.

Numbers of mines opened, closed and inspected, during the year 1937.

		Number	1	Number	of Mini	Es.	Insi	ections.
Provinci.	District and Mineral field.	of mines under the scope of the Act.	Worked under me- channel power.	Not worked by mee han i en l power.	Opened during the year.	Closed during the	Number of mines inspected.	Number of inspac-
				COAL				
ſ	Khasi and Iaintia Hills .	1	Ì	1			1	1
Assam .	Lakhimpur-Makum Coalfield	4	4		***		3	G
<u>l</u>	Naga Hills—Nazira Coalfield .	1	 	1			2	2
Baluchistan .	Balnchistan Coalfield	17		17	8	6	10	15
"al (and part	Ranigaaj Coalfield	226	, ,	į 70	43	15	234	959
	Jharia Comffield	251	Nonge		71			1,418
ne, jej sekre	Hokuro Conlfield	8			-			20
Hiber	Karanj 'A	6						7
Anna Beneraliya ya	Giridib •	4						
Ĺ	Jainty C	7						
 	 Botul •							
Central Pro-	Pench Valley (Wardha Valley		20					
Diana .	Hingir-Rampur Cr							

Table No. 4-contd

Numbers of mines opened, closed and inspected, during the year 1937-contd

			N	UMBER O	INSPECTIONS			
BOTINCE	D strict an l Mineral field	Yumber of mires under the scope of the Act	Worked under me- chanical power	Vot worked by mechanical power	Opened during the	Closed during the	Number of mines	Number of inspections
			c	DAL-co	ıtd.			
Jab	Salt Range Coalfield	40	_	40	18	13	25	34
	Grand Total (Coal) for 193	674	368	236	148	55	601	2 5 6 6
	Grand Total of preceding	591	355	140	65	54	536	2 78 5
	Difference	+10	+13	+87	+81	+1	+68	-218
			п	RON OR	E			
lař	Singhbhain	5		5	1		3	8
	Grand Total (Iron Ore) for 1937	5		5	1		3	8
	Grand Total of preceding	7		7			7	8
	Difference	-3		-2	+1		1	
			N.	IANGAN	ESE OR	<u>.</u>		
a.r	S nghbhum	14		16	3		12	13
mbay	North Kanara	3		3	3	•		
	Panch Mahala	2	2				2	3

Table No. 4-contd.

Numbers of mines opened, closed and inspected, during the year 1937-contd.

							·	
		Number	N	lomber	OF MINE	s.	Inspro	TIONS.
Provinor.	District and Minoral field.	of mines under the scope of the Act.	Worked ander me- chanical power.	Not worked by me- chanical power.	Oponed during the year.	Closed during the year.	Number of mines inspected.	Number of inspec-
			MAN	GANESI	ORE-	contd.		-
Central Pro-		67	3	64	87	8	36	3(
Madras		13	1	11	8	2	6	, (
	Grand Total (Manganese Ore) for 1937.	98	6	92	46	б	56	51
	Grand Total of preceding year.	63	5	58	23	7	39	41
	Difference .	+35	+1	+ 34	+23	-1	+17	+18
ACCOMPANIANCE TO TOTAL . 9 DOOR				GO	LD.			
Bihar		3		3	1	1	1	5
	Total of preceding year .	3	***	3	1)	1	1
ů.	Difference .		•••	,	•••			+1
				CHRON	AITE OF	E.		337 37. S
Baluchistan .		39		39	1		9	\$
Bihar		13	•••	13	3	***	10	10
Bombay .		1	***	1	,,,	•	<i>,</i>	* <u>************************************</u>
	Grand Total (Chromite Ore) for 1937.	58		5 3	4	•••	19	
	Grand Total of preceding year	49	•••	49		•••	9	9
	Difference .	+4	* ***	+4	+4	***	+10	+10

Table No 4-contd

Numbers of mines opened, closed and inspected, during the year 1937-contd

		Number	N	DEREE (D MINE	•	Ivarac	TIONS
PROVINCE	District and mineral field	of mines under the scope of the Act	Worked ander me- chanical power	Not worked by me- channal power	Opened during the year	Closed during the year	Number of mines	Number of inspec-
				COPPE	R ORE.			
Biher	Sieghbhum	5		5	2		2	6
	Total of preced ng year	3	2	1	1		1	6
	Difference	+2	-2	+4	+1		+1	
Biher		-70	34 :	MI 736	CA. SEC	277	158	108
Madras		103	13	90	45	23	72	72
Rapputane		36		36	20	24	14	14
	Grand Total (Mice) for 1937	909	47	862	451	334	214	254
	Grand Total of preceding year	639	40	659	305	234	134	145
	D fference	+210	+7	+203	+146	+ 90	+110	+109
·				5/	LT.			
Panjeb		3	1	2			3	8
	Total of preceding year	3	2	1			2	2
	Difference		-1	+1		1	' 1	+ 92,~

Numbers of mines opened, closed and inspected, during the year 1937—contd. Number Number Number OF 1997
lead, closed and inspected, during the
No. No. No. No. No. No. No. No. No. No.
MINER I
during du
of mingo
District and Mineral field. Not worked by moor of the year, during tho year, during thou year, from the year, from the year, from the year, from the year. Number of inspected mines with the year, during the year. Number of inspected mines to year. Number of inspected mines to year. Number of inspected mines to year. Number of inspected mines to year.
Mot worked by changed by changed by changed by changed by changed by changed by changed by changed by changed by changed by changed by changed the year, during
MAGNEGO MAGNEGO
- out of preceding year
D _{ifference} 3
har
STEATITE.
ral Pro 2 3
ccs
Pro 1 1 1
14 14 8
Grand Total (Start)
Grand Total of p
Difference 12 10 10 11 2
$\begin{vmatrix} 2 & -2 & -1 & +14 & +14 & 14 \end{vmatrix}$

Table No 4-contd

Numbers of mines opened, closed and inspected, during the year 1937-contd

		Number	N	ORDER	of Mine	8	INSPE	nione
PROVINCE	District and Mineral field	of mines under the scope of the Act	Worked under me-	Not worked by me-	Opened during	Closed during ti e	Number of mines inspected	Number of inspec
					SLA		,	
Bihar	Monghyz	s		5	1	2	7	1
i unjab		11		14	2	1	13	1;
	Grand Total (Slate) for 1937	19		10	3	3	~	26
	Grand Total of preceding year	21		21	7	5	11	11
	Difference	-2		۰	-s	-3	+9	+0
		-		ı '	LIMES	TONE		
Bihar		14		14	2	1	15	18
Central Pro-		19	2	17	4	4	17	19
Madras		1		I			1	1
Punab		3	1	2			4	4
Sind							1	1
	Grand Total (Limestone) for	37	3	31	6	5	38	43
	Grand Total of preceding year	47	3	44	11	.6	33	85
	Difference	-10		-10	_5			+ 8

Table No. 4-contd.

Numbers of mines opened, closed and inspected, during the year 1937—contd.

						Namb	n=	N	UMBER	OF MINE	is.	Inspec	TIONS.
Риоузкоп.	Distri	iot an	d Mi	neral	field.	of mino unde the scope of the Act.	B 7	Worked under mo- chanical powor.	Not worked by me- chanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Nambar of inspac- tions.
										NE.			
Bengal	***		•	•	·	-	3 -		3				4
Bibar .	444		•	•	•	. 5	3	***	53	8	4	62	68
Bombay .		•	•	•	٠	. 2	1	2	19	5	4	32	32
Central Pro-	***	•	•	•	•		2	***	2		***		***
Delbi .	Dolhi	•		٠	•			•••	•••	•••		1	2
	***	•		•	•	. 1	1	1	10	6	1	14	14
Punjab		•	•		•	-	4	•	4	•••	***	10	10
Sindh			•	•			1	•	1		•••	2	- 2
United Pro-		•	•	•	•	. 1	8	•••	13	2	1	34	30
	Grand T	Cotal	(Ston	e) fo	1937	. 10	8	3	105	21	10	159	171
	Grand 3	Cotal	of pre	cediı	ig year	. 10	4	3	101	9	11	138	144
			D	iffere	nce	+	4		+4	+12	-1	+21	+27

NUMBER OF MINES

Inspections

APPENDIX I-contd.

Table No 4-con d

Numbers of mines opened, closed and inspected, during the year 1937-contd.

	,	Number						
PROVINCE	District and Mineral field	of mines under the scope of the Act	Worked under me-	Not worked by mechanical power	Opened during the year	Closed dunng the	Number of m nes	Yumber of mapec-
				SA	NDSTO	NE.		
Biher	Shahabad	2		2		}	6	6
Juited Pro-						_	2	2
	Grand Total (bandstone) for 1937	3		2			8	8
	Grand Total of preceding year	3		3			7	7
	Difference	-1		-1			+1	+1
					FIRE C	LAY.		
Longal		2		2	1	1	-	2
Bihar	,	5		5			7	D
Central Pro		3	2	1			1	1
Griena							1	1
	Grand Total (Fire Clay) for 1937	10	2	8	1		11	13
	Grand Total of preceding year	1	2	2			2	24
				1			-10	-11

Table No. 4-contd.

Numbers of mines opened, closed and inspected, during the year 1937-contd.

		Number	.]	Number	OF MINE	.B.	INSPE	CTIONS.
PROVINCE.	District and Mineral field.	of mines under tho scope of the Act.	Worked under mo- chanical power.	Not worked by mochanical, power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspac-
i	•				CHINA	CLAY.		
Bihar		9		ຄ	3	2	s	10
Delhi		3		3	4	4	9	13
Madras		1		1	1			
	Grand Total (China Clay) for	15		15	8	G	17	23
, \$	Grand Total of preceding year	14		14	ថ	5	9	9
4.	Difference .	+1		+1	+2	+1	+8	+11
•						CLAY.	-	٠
Beagal	Burdwan	3	1	2	1	1	4	4
	Total of preceding year	1	1				3	5
2 11	Difforence .	12		+2	+1	· +1	4.1	-1

Table No 4-contd

Numbers of mines opened, closed and inspecte I, during the year 1936-contd

		Number	,	Number	OF MINI	**	Insra	BFOITO
PROVINCE	Instrict and Mir eral field	of mines nader the scope of the Act	Worked under me-	Not worked by me- channal power	Opened during the year	Closed during the	Vamber of m nes	Number of mepec
						BARYT	ES	
Madras		"	1	5	1		5	ه ا
					_			
	Total of proceding year	2		- 1			1	4
	Difference	+3		+3	+-		+1	+1
			-			ASRE	STOS	
Reputana		1	ł	1	1	 I I		l
	Total of preceding year	-			_	_		
	Difference	+1		+1	+1			
						OCHRE		
Central Pro-		1		1	1			
	Total of preceding year	1	_	1		3	7	1
	Difference				+1	- 1	-1	I
					1	KAOLINE	:	
Central Pro		1		1				
	Total of preceding year	1		1				
	Difference							

Table No. 4—contd.

Numbers of mines opened, closed and inspected, during the year 1937—contd.

		Number	ì	Vunder	op Mine	8.	Inspe	CTIONS.
Province.	District and Mineral field.	of mines under the scope of the Act.	Worked under me- chanical power.	Not worked by me-	Oponed during the year.	Closed during the year.	Number of mines inspected.	Number of inspec-
				G	YPSUM			
Madras		4	•••	4	.1	1		
	Total of preceding year	4	***	4	***	1	3	4
	Difference .		•••		+1	•••	+3	+4
,				1	BERYL.			
Rajputana .		3		3	1	1	2	2
an interest with the	Total of preceding year	s	•••	8	7	4	3	2
	Difference .	5		-5	-6	-3		***
-				GR	APHITE			
Madras .		1		_ 1				5-1
Central Pro-							1	1
,c.g.,	Grand Total (Graphito) for 1937 Total of preceding year	1 2	- ''-	1 2	.:.		1 1	1
	Difference .	-1		-1				•••
				BA	UXITE.			
Bombay		1		1 }	1 }		1	1
Central Pro-		2		2			4	4
	Grand 'Total of (Banxite) for 1937	3	•••	3	1		Б	5
	Total of preceding year .						3	8
	Difference .	+3		+3	+1		+2	+2

Table No. 4-concid.

Numbers of mines opened, closed and inspected, during the year 1937—concld

Number of Mines

		Yumber	241	IRBER C	n mines	- 1	INSPE	CTIONS
Province	District and Mineral Seld	of mines under the scope of the Act	Worked under me- chanical power	Not worked by me- channel power	Opened during the year	Closed during the	Number of mines	Number of mapec-
					FELSPA	R.		
putana .		3		3	1	1	2	2
	Total of preceding year			5		3	3	8
	Difference	-2			+1	3		
	·	—			MUSCO			
				1	MUSCU	1		
putana	• • •	1	_		_			
	Total of preceding year	1		1	1			
	Difference				-1	+1		-
					YANITE			
har .		1		1	1			
	Total of preceding year							
	Difference	+1		+1	ا, ا			
			-		TANTAL	TTE.	_	
har		1		1		1		
		 		1	1			
	Total of preceding year Difference	1				+1		
	Difference	 				74		
	Grand Total (Metalliferous Mines) for 1937	1,321	63	158	561	371	6.6	GR >
	Grand Total of preceding year	1,469	79	1,390	497	359	538	581
	Difference	-149	16	-132	+67	+12	+91	+ 96
	Grand Total (All Minerals)	1,925	431	1 494	710	476	1 230	3 216
	for 1937 Grand Total of preceding year	19,3	434	1,539	503	413	1 071	3 375
	Difference	48	-3	-45	+148	+13	+159	13

Table No. 5.

The following table shows the fluctuations in the output of the principal minerals raised from mines classed under the Indian Mines Act. The other minerals raised are apatite, usbestos, barytes, bauxite, beryl, chinaclay, clay, felsper, fireclay, fuller's earth, graphite, gypsum, kyanite, magnesite, muscovite, ochre, stone, slate, steatite and tantalite.

Coal,	Manga nese ore,	Mica.	Lime- stone.	Salt.	Gold.	Copper ore.	Wolfram ore.	Iron ore.	Chro- mite ore.	Tin ore.	Lead ore.	Silver.
Tone	Tons	Cwts.	Tons.	Tons.	Troy	Tons.	Tons.	Tons.	Tons.	Tons.	Tons,	Troy
l			1.404.578	145,543	ozs. 7	18,055	622	1,206,754	17,167	2,777	443,654	7,404,728
1				148,496	30	76,831	1,061	1,436,335	21,054	3,384	404,561	7,280,517
1			, 4,44	. 1	30	123,749	1,509	1,132,893	30,488	3,001	530,119	7,054,206
1		}				153,636	969	590,176	14,938	2,552	397,679	5,900,400
1	1	1		1	50	175,375	848	678,434	7,866	2,957	372,586	5,998,950
1	1	•				201,722	836	653,239	9,770	3,209	454,791	6,054,069
1	1	,	,	1		1	1.333	831,477	9,356	3,690	443,489	5,792,033
1 '	1			1				1] [463,886	5,825,029
21,014,460	422,817	58,553	-,	1			1		7			5,952,000
26,583,082	624,830	82,077	1,007,957	1 .			1 1					•
22,335,528	800,280	94,811	1,318,598	163,813	26	371,458		1,587,362	36,387	···•	•••	***
	Tons. 31,515,793 22,308,174 22,083,861 30,514,507 18,719,587 18,160,681 20,243,977 41,014,460 26,583,082	Tons. Tons. 21,515,793 716,626 22,308,174 750,908 22,683,861 623,678 30,514,507 347,373 18,719,587 88,110 18,160,681 53,240 20,243,977 221,282 31,014,460 422,847	Tons. Tons. Gwts. 21,515,793 716,026 44,639 22,308,174 750,908 49,437 22,683,861 023,676 52,519 30,514,507 347,373 46,177 18,719,587 88,119 32,643 18,160,681 53,240 41,005 20,243,977 221,282 55,555 31,014,460 422,847 58,553 26,583,082 624,830 82,077	Tons. Tons. Cwts. Tons. 21,515,793 716,626 44,639 1,404,578 22,308,174 750,908 49,437 1,313,647 22,683,861 623,678 52,519 1,143,312 30,514,507 347,873 46,177 893,236 18,719,587 88,119 32,643 725,378 18,160,681 53,240 41,005 1,120,110 20,243,977 221,282 55,555 940,860 31,014,460 422,847 58,553 1,000,309 20,583,082 624,830 82,077 1,007,057	Coal. Mics. stone. Same. Tons. Cwts. Tons. Tons. 21,515,793 716,626 44,639 1,404,578 145,543 22,308,174 750,908 49,437 1,313,647 148,496 22,683,861 623,678 52,516 1,143,312 147,276 30,514,507 347,373 46,177 803,230 134,916 18,719,587 88,110 32,043 725,378 150,386 18,160,681 53,240 41,005 1,120,110 145,838 20,243,977 221,282 55,555 940,860 154,955 31,014,460 422,847 58,553 1,000,309 150,515 20,583,082 624,830 82,077 1,007,967 161,523	Coal. Mese ore. Mica. stone. Sais. Gods. Tons. Tons. Cwts. Tons. Tons. Troy ozs. 21,515,793 716,626 44,639 1,404,578 145,543 7 22,308,174 750,908 49,437 1,313,647 148,496 30 22,683,861 623,678 52,519 1,143,312 147,276 30 30,514,507 347,373 46,177 863,226 134,016 18,719,687 88,110 32,643 725,378 150,286 50 18,160,681 53,240 41,005 1,120,110 145,838 267 20,243,977 221,283 55,555 940,860 154,055 858 31,014,460 422,847 58,553 1,000,309 150,515 1,255 26,583,082 624,830 82,077 1,007,057 161,623 1,376	Tons. Tons. Cwts. Tons. Tons. Tons. 21,515,793 716,026 44,639 1,404,578 145,543 7 18,055 22,308,174 750,908 49,437 1,313,647 149,496 30 76,831 22,683,861 623,678 52,519 1,143,312 147,276 30 123,749 30,514,507 347,873 46,177 893,236 134,016 153,636 18,719,587 88,119 32,643 725,378 150,286 50 175,375 18,160,681 53,240 41,005 1,120,110 145,838 267 201,722 20,243,977 221,282 55,555 919,860 154,055 858 328,676 31,014,460 422,847 58,553 1,000,309 150,515 1,255 350,801 20,583,082 624,830 82,077 1,007,057 161,623 1,376 371,145	Tons. Tons. Cwts. Tons. Tons. Tons. 18,055 622 22,308,174 750,908 49,437 1,313,647 148,496 30 76,831 1,061 22,683,861 623,678 52,519 1,143,312 147,276 30 123,749 1,509 30,514,507 347,373 46,177 803,236 134,016 153,636 969 18,719,587 88,119 32,643 725,378 180,286 50 175,375 848 18,160,681 53,240 41,005 1,120,110 145,838 267 201,722 836 20,243,977 221,282 55,555 940,860 154,055 858 328,676 1,333 11,014,460 422,847 58,553 1,000,309 150,515 1,255 350,801 2,549 20,583,082 624,830 82,077 1,007,087 151,523 1,376 357,194 3,140	Tons. Tons. Cwts. Tons. Tons. Tons. Tons. 18,055 G22 1,206,754 C22,308,174 750,908 49,437 1,313,647 148,496 30 76,831 1,061 1,436,385 22,683,861 623,678 52,519 1,143,312 147,276 30 123,749 1,509 1,132,893 30,514,507 347,373 46,177 803,236 134,016 183,636 069 590,176 18,719,587 88,119 32,643 725,378 180,286 50 175,375 848 678,434 18,160,681 53,240 41,005 1,120,110 145,838 267 201,722 836 653,239 20,243,977 221,282 55,555 340,860 154,055 858 328,676 1,333 831,477 11,014,460 422,847 58,553 1,000,309 150,515 1,255 350,801 2,549 1,179,050 26,583,082 624,830 82,077 1,007,087 151,523 1,376 357,194 3,140 1,401,530	Coal. Manga nese ore. Mica. Lime stone. Salt. Gold. Copper ore. Wolfram ore. Iron ore. mite ore. Tons. Tons.	Coal. Maga nese ore. Mica. Lime stone. Salt. Gold. Copper ore. Wolfram ore. Iron ore. mite ore. Tin ore. Tons. Tons.	Coal. Marga nese ore. Mica. Lime stone. Salt. Gold. Copper ore. Wolfren ore. Iron ore. Tin ore. Tin ore. Teach ore. Tons. Tons.

^{*} The production in previous year was from Burma.

Table No. 6.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1928-1937 in respect of coal mines under the Indian Mines Act:—

					T		Average		Death-rates.			
			Year.			Amount of coal raised.	number of persons work- ing daily below and above ground.	Number of deaths below and above ground,	Per 1,000,009 tons raised.	Per 1,000 persons working daily below and above ground.		
ጀ ንታ	1928	•	•	•		21,515,796	164,139	218	10:13	1.33		
	1929	,				22,308,174	165,658	194	8.70	1.17		
	1930					22,683,861	169,601	211	•30	1.25		
	1931					20,514,597	158,267	185	9 ·0 2	1.17		
	1932					18,719,587	148,489	151	8.07	1.02		
	1933					18,160,681	144,707	124	6.83	0.86		
	1934		,			20,243,977	151,375	157	7.76	1.04		
	1935					21,014,469	159,254	264	12.56	1.66		
	1936					20,583,982	162,917	420	20.40	2.58		
	1937				•	22,335,528	171,149	200	8.95	1-17		

Table No 7

Aggregate horse power and purpos for use of electric motors installed both on surface and underground at Cod Mines under the Indian Mines Act

	T_	Horse power on surface						Morse power below ground				
Coalfield	Ju pu A	Ventilation	Hanlage	Coal worb ng or	M scellancons	Total	Haulage	Pump ng	Portable machi nery	M scellancons	Total	Total horse power of motors metalled
Assam Bokaro Central Provinces Girid I Jharia Karanjura Punjab Eaniganj	200 165 773 	117 125 83 305 1 % "5	750	7 85 0 1,186 05	186 1 161 13 418 1 683 311	43, 161 18 12 1 9 011 1 264 0 3	150 200 56 7 9 - 90 7 169	0 66 4 20 21 8 3 453 11 6 0	55 815 10 8 89 107 8 127	80 2 1 9 4	150 1 05° 1 4°7 5 0 6 35 3 6 560 2 3°8	615 3 213 1 6 5 8 367 41 56 1 8°4 25 °8,518
Total	5 433	3 517	4 415	2 67.	4 *74	on 640	16 541	39 607	103	3	65 961	108 98

Table No 8

Number of Mines under the Ind an Mines Act where electric power is isel, and the aggregate horse power of electric motors installed

	I	Minerals worked						
Province	Co	sì	Sundry 3	Total horse power of				
	Number of tames	Horse power	Number of m nes	Horse power	motors refalled			
Assam	2	615			61a			
Bengal	43	2140	1	58	24 538			
Bihar	69	60 609	6	4 052	64 060			
Bombay			1	166	166			
Central Prov nees	9	16 3	7	560	2 235			
Madras			3	441	441			
Punjab	1	*5		1				
Total	124	86 801	20					

Table No. 9.

Number and type of coal-cutting machines at work in Coal Mines under the Indian Mines Act.

	Name of machine.												Регоиввіче.	Power.		Total number of
									-		Chain.	Bar.	Percu	А. С.	D. C.	machines.
Diamo	nd		•		•		•				1		•••	1		1
Goodm	an		•	•	•	•	•		•	-	65			45	20	65
Hardy			•	•	•	•	•	•	•	-1	***		6	6		6
Mayor) bua	loul!	воп		•		•		•	- 1	26	29		57	1	58
Sulliva	n.		•	•	•	•	•	•	٠	-	10			10		10
								То	tal	.1	105	29	в	119	21	140
	Giri Kar Bok	igan dih anpi aro	ij co coa nra coal	alfie lfield coalf field		lfisid	:	•	:	:	:	1 mach	ine (To	tel numb andercut	er of squ 6,890,16	are fest 0.

Table No. 10.

Number of mechanical ventilators in use at Coal Mines under the Indian Mines Act in 1937.

Assam.	Baluchistan.	, Bengal.	Bihar.	Central Provinces.	Orissa.	Punjab.	Total.
9	•••	33	64	9	•••	2	117

APPENDIX I-concid

Table No. 11. Safety lamps in use at Coal Mines under the Indian Mines Act

	-		Num	bor 10 use	fq.		
\ame of manufacturer	Assam	Baluchie tan	Bengal	B har	Control Or sea	Punjab	Total
Ceag	320		Elec	tne.			1 949
Oldham	ĺ	1	-		İ		l
Concord a		1	1 175 Flam	type.	i -		1 077
Dayles	389	ļ	488	3 159	5	6	8 417
Hailwood	1 069		2335	11 796			5 200
Naylor			4	234	[*38
Patterson			209	1 386	İ		1 655
Premier			27	963	1 1		J95
Thomas Will ame	1	1 6	7 73.	\$ 076	1	-	12 811
Wolfe		6	1	,	1		G
Total	178	6	16 423	°4 "30	5	6	49 948

9 "31 were looked by lead r vote and 33 217 by magnet o means

Table No 12.

Statement of explosives used during the year 1937 at mines under the Indian Mines Act

		Quanti	ty of exp	los ves u	eed in li	la.	
Name of explos ves.	Coal m nes	M ca muses	Manga mose mines	L me stone n ines	Stone	Other m new	Total
Dynamite	° 199	17 00°	5	20	2 433	2 177	23 830
Gelignite	59 641	1°6 091	91 117	9 020	2 120	149 474	787 68
Monobel	42 729	ĺ		1 110			43 832
Stonobel	167 580]		ļ	1		167 580
Dynobel	212	ì	}	1			n42
Bobbinite	15	1			-		15
Raunkol	9 960	1					9 960
Liqu d Oxygen	112 581	-		Ì			112 881
Gunpowder	2 751 418	10 014	110 573	270 918	159 684	409 303	3 711 912
P or c Powder					1846		1 84€
Number of detonators used	778 05°	1 4'8 078	572 947	£ 409			43 596 ₂₄₄

Fatal Accidents during the year 1937-contd.

	Cause of accident and remarks.			While at work on a longwall face, two persons were struck and killed on the spot by a mass of stone, 7' × 2' -3' × 1', which fell from the roof at a height of about 3 feet. Inspection and enquiry made.	Deceased entered a place from where timber had been withdrawn in order to retrieve his basket. A mass of coal, 20' × 15' × 2' thick, fell from the roof and killed him instantly. Inspection and enquiry made.	As four conl-entters were walking up n wain hanlage road at the fermination of their relay a mass of roof stone, 24' × 8' and rom 6" to 8' thick, fell from a height of 8 feet. Three of them were killed instantly and two other was seriously injured. Inspection and enquiry made.	The deceased were dressing down reof coal in a gallery, when a mass of ceal, 5' \(\varepsilon' \times' thick, fell on them from s'slip' at a height of \$ feet. One was killed on the spet and the other died shortly afterwards. Inspection and conniver made.	While deceased was loading coal in a gallery, a mass of stone, 4.6" × 4' and from 2' to 4" thick, foll on him from the roof at a height of 6 feet, and he died about three months later. Inspection and ouquiry made,
7	Name of mineral worked.	S-contd.		Coal	Coal	Coal	Conl	Coal
	Name, eox, nge and occupation of persons killed.	FALLS OF ROOF AND SIDES—contd	(a) Falls of roof		Tahalu (30po, (m. , 45, Coal-culler	(1) Kishan Majhi, (m.), 42, (2) Badau Majhi, (m.), 33, (3) Somea Majhi (3) Somea Majhi (3) Somea Majhi (m.), 30, Cool-cutters.	Motka Manjhi (m), 23, Sitla Manjhi (m.), 30, Corl-catters,	Haril Mahrto, (m.), 30. Coal-carrier.
	Nume of owner.	FALLS 0	3	The Executor of Sultan Ali, tho Estate of late (m.), 21. Lala Shanker Das., Cont cutt Rajwali, (m.), 33, (m.), 33,	Maharajı S. C. Nandı.	Budroochuk Coal Mining Co., Ltd.	Koshavji Pitamber, Motku Manjhi Roceiver. (m.), 25, Silia Manjhi (m.), 30, Coal-catters.	Central Jinagora Coal & Coke Agency.
	Name and situation of mine.			No. 2 Gambrala Mine, Daudot P. O., Punjab.	Ekra Khas Mine, Banejora P. O., Bihar.	Budroochuck Ninc, Sijua P. O., Bihar.	Dobari Mine, Jharia P. O., Bihar.	Contral Jinagora Mine, Jharin P. D., Bihar.
	Date and hour of accident.			14 14th March, 6-30 A.M.	18th March, 1.30 A. M.	20th March, 7-30 A. M.	9th April, 9-15 P. M.	14th April, 2-30 A. M.
1	Serial			14	15	16	17	18

1	n	Ω

an old and the transfer and the transfer and the transfer and the transfer and the transfer and the transfer and transfer	feet ade	f area fron- froof of 16	was 7-6° threa quir	l in a forked roof,	biray n iwo ass of the of junes	fell fell	from land	f ccal m tho unes
While a karg of muters was sugaged in cleaning an old consultant 5-de high, a bump' veryrett in the goal cannung a mass of coal 10 + 10 \tau 1 to fall from a hidden 'slip in the you? Two muters were Milded on the spot and another received services in jurges, jurgest, maint cenquiry made	White decrassed was working on a longwall face a mass of stone fell on to his fead from the roof at a hoght of 21 feer He sustained fatal injuries. Inspection and enjury made	While prope were lears withdrawn from a depillaring area decreased attended to receive a test special or receive a prey displecy by a bylice. See projectioner. He was killed by a fall of a mass of received and seed to see the projection and engage of the projection and engage make.	While pushing an emply two on a traming deceased was track and kilds instably by a full of one or 1, 1, 2, 1, -1, -1, -1, -1, -1, -1, 4.7, which indically became dislolated from between three made as a hight of shout \$ feet. Included in and requiry	While a tennis confearner was filling a basket with coal in a pailer, 12 feet high in which rend coal was being worked a muse of coals x 4-c/x 4-12/x 7 fell from a dip in the rens, New was Mile instantly Inspection and ordiniy made.	therefore and he two searchashs were act to welthers there fores as a despite an experience the farthers were two props, and while the little are because the farthers are roof stone, 10 a. 8° x. breame datedged from a beight of 12 feet and stronk diversed who seconds to be harply as shortly afterwards. Therefore are searched to be anymost shortly afterwards. Therefore are searched to be anymost	While a meet was it venng down coal from the reof of an 'openue' a puece of coal, werking 100 Hz fell from a bright of 10 feet like was struck on the head and killed instanty. Imperition and enquiry made	While coal west being leaded to a could ang acces in a cerus. So feet thick, a mass of ceal, 6 x f x y, fell from the root December was sirts, by the falling coal and received fetal injuries. Inspection and anomary meta.	Deceased cutered a gality to lead lack oad where for call was being en. A mass of cost, 18 ×6×1—9, fell from the pool at a hergit of 10 feet and he scattant of fatal injures inspection and conturn made
aged in trred in I from a h on the sy	longwall oof at a h ection and	from a rep dislod by a fall of from fall of from le	a tramhn dged from Ine; ect	ng a baske not con w ell from a non and en	tuborman and has two assatunts were act to three ploages as a displacting area. They had withd prope and while this third was being withdraw a roof store, 10 at x ft, breame disinding from a life. I feet and stroop forecasts in Inspection and cropity make shortly afterwarts. Inspection and cropity make	This a mace was it werny down coal from 66 as "uponing" a pace of coal, weiching 100 i from a bright of 10 feet 11s was strace on th and kills instantly Inspection and enquiry made	epullary	slack coal ×6'×1 — e gastaine
was engineers to fall	from the restriction	his propa were leng withdrawn f deceased attempted to recover a pro- ter propalamer IIs was hilled by 201, 23, 419 x 2", which suddenly if feet. Impection and expury make	tub on tly by a fa the dialo	was fille which r	agastan ing area, ard was b reame dra eased who pection as	ce of coa	aded an a mass of co a stre h	r to load a of cost, IS feet and h
high, a 't 10' x 10 ; minera w	raa work hin bead atal mjur	ore leng or He cz', which	an empty lad marshi latenty be- makt of al	by by by by by by by by by by by by by b	d has two a depular and the th *8'*5', l	mas lev 1g ' a pre 5 of 10 f	thek, w. cersed ws	vecessed cutored a gallery to l was being cut. A mass of co roof at a height of 10 feets Inspection and cuquiry made
Fluie a gang roadway, 5-6- a mars of coal the roof Two received acrust	dectard a fell on to netained f	propawa ased atter propeirase 25, 4, 19° 3	puebing rate and kill which an	a temale or rv, 12 fe ra of coal	orman and property and a grad will a grad will a grad will be cet and a filly afferw	a bergel	coal was	sed cutare being ent at a her ection and
While road the r	While ston Has	While feer feer	While and the state of the stat	n bila galla	A tamb three 1200 though	Thule of a: from and l	Y hale read the recei	Decea roof Insp
Coal	Cuel .	Cos1	Coal		Coal	Coal	Coal	Coal
_*				m,		_		
ខ្លុំ ៖	3 .	4 5	Ę,	Ē		lbaz	Ħ	a .
(B) Habib Noth, (m), J2, (2) Atloo Davad, (m), 45, Cod-cutter	Bushmat Alt, {m }, 45, Cost-cut v	Karam Ingh (m), 30, Ta bermatiy	Sarkat Menjin, (m.), 35, Coel cuiter	1 arbate Chetmarin, Coal (f) 42, Coal-toader	Metabdin (m), 40, Lebourer	hamora Pathan (m) 45 Cost cutter	Charsen Bhum, (m.) 26, Loader	Bolorum Rat (m) 50, Cost rutter
Paul-		Clicenes Karam Ingh (a), 30, Tas bereardy			SE.			ideopur Bolorum Rat Lid (m) 50, Cost cutter
Covernment of (4) Habib Neah, ladia State East. (9), 42, way Coil Bept (9), Alton Dawad (19, 45, (19, 45, Cost-enter		Collegues Ex	Chreatla Coal Co Sarkar Memin (m), 33, emer- Coal cuter		SE.		Standard Coal Co Charm Bham, Ltd (m.) 26, Loader	Now Bansdeopur Bolorum Bat Coal Co., Lid (m) 50, Coel cutter
Paul-	Was Stone & Lime Quarry Ltd , and Paulit Gen Chand	Ponish Collectes Ka	Chwasila Coal Co	. В Вацегуе	The Tata Iron & Mai	Assan Parlwars A Trading Co, Ltd	Standard Coal Co	New Bansdeopur Bol
Government of Judia State Rail- way Cold Dept	Was Stone & Lime Quarry Ltd , and Paulit Gen Chand	Ponish Collectes Ka	Charalla Coal Co	. В Вацегуе	The Tata Iron & Moi Steel Co Ltd (m	O, A Trading Co,	Standard Coal Co	
Paul-		Ponish Collectes Ka		. В Вацегуе	The Tata Iron & Moi Steel Co Ltd (m	Assan Parlwars A Trading Co, Ltd	Standard Coal Co	Baned oppur Mine New Bandoopur Bologum Bar Konnada P O Coal Co., Lid (n) 50, Coel tuffer
Stempur Nice Government of Gordin P. O. Rikar P. O. way Coll Dept	No 8 Candhala Mue Wah Stone & Lime Landot P O, Querry Ltd., and Paulit Gien Chand	Pound Mue Pount Collector Ex. Did Collector Champior P O. Did	Chweella Mus Chweella Coal Co	Ganbooth Mas '. B Baherye Junia P O. Bihar	Jonadoba Mine, The Tata Iron & Me Belgera P. O. Steel Co Ltd m	Namdong Mase Margherta P O, A Trading Co, Lid	Justia Khas Muse, Standard Coal Co Jisara P O Eid	Bansdeopur Mue Kusunda P O B har
Government of Judia State Rail- way Cold Dept	Was Stone & Lime Quarry Ltd , and Paulit Gen Chand	3th May, Ponael Mine, Penash Collectes Ka 5 A W. Champer P O. End Collectes (6 Dengal, 19	Th Vay. Chwesila Mus Cavesila Coal Co Bharda P U Bharda P U Bharda P U	. В Вацегуе	IRA Jose, Janudoba Mine, The Tara from & Melica A. Melica A. Steel Co. Ltd. melikar P. O.	O, A Trading Co,	Justia Khas Muse, Standard Coal Co Jisara P O Eid	

Fatal Accidents during the year 1937-contd.

			-	0			
Cause of accident and romarks.	-contd.	Deceased was struck by a mass of coal, woighing about 3 cott which fell o him from the roof of a gallery 20 fcot high where roof coal was being taken down by blasting. He suchined serious injuries which proved fatal eighteen days later. Inspection and inquiry mada.	While deceased was at work in a gallery, 4½ feet high, a mass o' reof stone, 9'x6' au! from I" to I'thick, fell unexpectedly and killed him instantly Inspection and enquiry made.	Coal was being loaded after blasting a "steok" in a depillaring aren when a mass of shalo-roof, about 10'x 10'x 8" thick, suddenly fell from a beight of 15 feot killing two loaders instantly. A miner sustained serious injuries to which he succumbed in hospital half an hour later. Inspection and enquiry made.	While robbing coal from a fonced off gallery deceased was killed by a mass of stone, about $3 \times 2' \times 1' - 6''$ thick, that fell on him from the cornor of a pillar at a height of about 8 feet. Inspection and onemy m_2d_0 .	Decensed left his w.rking place and went through a fenco into a goafed area to load fallen coal. He was killed by a mass of roof coal, weighing about 1½ tous, which foll from a height of about 12 feet. Inspection and onquiry made.	While cutting coal on a longwall face a mass of stone fell on the decased from a height of 3 feet and killed him on the spot. Inspection and orquiry made.
Name of minoral workod.		Coal	Coal	Conl	Coal .	Conl .	Coal .
Name, sox, age sad occupation of persons killed.	FALLS OF ROOF AND SIDES- (a) Falls of roof—conid.	Lachoo Noonia, (m), 38, Loader,	Babulal (Jalpha) Manjhi, (m), 35, Coal-cutter,	(1) Shoikh Babu, (m.), 35, Coal-cutter. (2) Gnttu, (m.), 35. (3) Kashilal, (m.), 30, (m.), 30, Loaders.	Sheik Subhan, ('m.), 47, Coal-cutter.	Jai Ram Meah, (m). 35. Coal-cutter.	Kalla, fm.), 25, Coal-culter.
Name of owner.	F	Standard Coal Co. Lachoo Noosia, Ltd (m), 38, Londer.	Jainty Contral Colliery Limited.	Hirdagarh Collicries, Ltd.	Newton Chickli Collieries Ltd.	Wost Bhuggutdih Colliery Co.	The Executors of the Estate of 1ste Lala Shanker Das.
Name and situation of mine.		Standard (Jharia Khas) mi'nc, Jharia P.O., Bjhar.	Jainty Ceutral mine, Karmatar P.O., Bihar.	Upper Ghorawari Mine, Junnordeo P. O., Central Provinces.	Newton Chickli Mine, Parasia P. O C. P.	West Bluggatdilı Mino, Jharia P. O., Bihar.	No. 3, North Gambrala "dine, Dancot P. O., Punjab.
Unte and honr of accident.			8th July. 3.30 r.m.	3-33 A.Br.	15th July, 5 A. M.	lötli July, 2 p.n.	17th July, 9.3 ' A. M.
Serial . 10dmun			eg R	ි වි		27	88

			1	111			
While deceased was sounding the roof in a dep llaring area, a amea of cont a x.x.x. it think full through between two contexted class at a brught of 14 for it fits was stronk.	and birds that by I therefore and createry under the forest and the state of the st	While a mnore was carged in welcome out a proposed hanker word of feet hits a man of use of 8 4 2 proposed full from that root at n, pour waters a family occured the white of them started by the fulling uses and on an exercise and crossive majored that shouly sterrards hospectors and crossive majored that shouly sterrards in hospectors	While a fooder was at work in a galloy 12 feet high in the of states has been described as been described by the of a state of the stat	The deceased left these working place and sensed through a feros (to rob coal from tha edge of a goaf. They ware made by a fall of roof in the goaf. Impec 100 and enquary	While three women were loading coalin a gallery, 9ft high one of the women was killed to Kay, fall from the roof secondly remove was killed to estably sad two others were	Decreased was load a coult hat had been blasted from the book of a salloy 2 feet high, where a mass of root continue 2 2 2 4 1 6 1 0 ab his from between the conceiled between places. In section 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	mado. While at work ma drave the decrease were strong and from the work are a confident of the man of each and when fall inquiry made of each and when fall inquiry made of a heapth of about 0 feet Impection and
Con	Coal	Coal	oo Com	Coat	Conf	Con	Mich
Golpa Tan (v.)., 30 Trabercootie	Danuda (1) Balai Manjin Coal Ltd (201-entire Coal-entire (2) Bhatoo bugh (2) Dantoo bugh	Tata Iron & Steel Noomeram Manjah, Coal Co Ltd Coal cetter	Coat Buder Keiri, Ltd m 1, 30 Loafer	B Mukherjes & Co 1 Valunda Muchi Coal (m) 30 2 Jognada Bonn (m) 56 (m) 68	ទួ	Mahabir Dhum, (m) 30 Louder	1 Latoo Gope, (m.) 12 2 Mahadeo Sugh, (m.), 45 Driffers
Apour Colheries,	North Dannda Coal Co Ltd	Tata Iron & Steel Co Ltd	Ranceguega Coat Associa ton Ltd	B Mukherjes & Co	Cinrulta Coal Co	Standard Coal Co.	
Charapper Mine Charapper P. O., Bengal	Patrodua Muce Sistempur P O Beogal	Jamedoba Mine Jeagora P O, Bilar	Kustors (Altura Vorth) Mine Kumuda P O Bibar	Portspur Mine Churdia P O Bergal	Churulia Muse, Charulla P.O., Rengal	which ill Breakle See Standard Coal Co. Malabir Blaus, tion) 1 me. Jharia P. O. Lid Lord Lord Lord Lorder Line Lorder	(Ingrael Acendustern Kaloo Ram Med.) 11 11 11 11 11 11 11 11 11 11 11 11 11
34 1"th July 10 A M	25 25th July 3.30 P m	36 9th August 1-30 r m	THE PERSON TO A LA	27 th August, 1 4 M		Je udny	Ė

				113				
With deceased was exercted in a depillaring zera in a seam Tete their a mass of roof stone 6 x 4 x 2, diviloiped some apports at 1 till on him. He was killed instantly. Irrepretien and enquiry unde	While lading coal in a dipilaring area, deceased was killed unersnier by a fall of roof 9 as a "e" but fell unexpectedly from a keight of 26 feet. Inspection and enquery nade.	While cupered in dressing the roof progrationy to secting timber on a new radies deceated was facility infored by a mass of coal, 4 x 2 x 3 - 1 which fell from the roof as a leight of 7 feet. Is ejection and enginery made	While paper store for grandbanen in a defilliang anna a meas of reed store on 110 ° 3 = 6 full from a beight of 12 fee kaling its deceased instantly Inspection and curyinty made	While the Court of we regard in Charges shall lade no a cross-of a few sections of the few sections of the few sections of the court of the language and and and an and a few and and the few sections of the language of text. Indeed, were hilled instinctly Impression and enquiry made.	Research was hit of na antly, in a working railery when a neas of roof coal weighing approximately 13 tous fell from a beight of 10 feet. Inspection and sugainfy mada	The deceased entered a fenced off goal to load loose ond and were hilled to their things about "o a. 4.0. 4.—6. which fell from he roof at a height of 4. If larspection and on pury maje	While a coal entire was ingrard in loading coal in a depul- reing gave a legs efton it. Alf from mand, the g af and dashedged three props in the working place. He was strend you so d the props and sustained injuries which proced fixed. Interection and corners made.	While working in a place from where supports had been subblears diceased wis hilled by a mass of stone which fell from tha roof at a height of 3 feet. Impection and enquiry made
Conf	Coal	Coal	Coal	Copper	Cost	Coal	Con	Coal
Ja lu Manylı, (m.), 50 Cont cutter	Jangle o Nona fret 46 Logier	I al Bahadur, Vewar (w) _6	(furn Charan Singh, Coul m), 36 J ropp symutry Sylal singh, (m) 32 Propping-codes,	Jewes Cahoo (m) 23 Bests Meres P. Visyandi, (m) 45 Lineter	Baro Lokhet Man- Cost jhi fer) alont 30,	(av), 35 (av), 35 2 Parcha Mahali (m,), 36, (out office	Colluries Burl at Kole 40 to 1	Khau (m) 38, Coel cetter
The New Beer bloom Co, Ltd	Lodna Colliery Co., Jangles Nona (19.0), Itd. (r. 1 46 Lee ter	The Aeam Pail- ways and Frading Co Lt 1	Rance zunge Coal Apposition I'td	Indian Copper Corporation Ltd	south Samla colli- ery Co	N K Nag (Rees)	Apcar Colleries, Ltd	The Executors of the estate of lata Lala Shanker Bass
Victora Mine, Kulu P O , Bengal	I odna Muc. Janara P. O., Bihar	90th October, I ado (New West) Murphorita P. O. Assam	Knetore Mne Kneunda P O Biber	Dhobau Mus, chatelle P O Bihar	6 P. M. Pouth Samia Mine, Pandareawa P. O., Bengal	12th November New Smith Mus, Ar M. Ratraugarh F 19. Bhar	19th November Charappur Mine Charappur P O, Bengul	No 3 North Gambrels Mine Dandot P O Punjab
13th October	19th October, 31 0 P M	20th October,	20th Outober, 9-45 g vt	7 r w	6th Vovemler, 6 r M	12th Vorember	19th November 4-45 A M	2let November 1 A M

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Fatal Accidents during the year 1937-contd.

	Cause of accident and remarks.	While, dressing ceal from the side of a pillar after blasting, a miner was etruck and fatally injured by a mass of coal, 1'-6' · 1' · 1', which fell from the reef at a height of 11 feet. Inspection and enquiry made	While engaged in carrying coal from his working place deceased was struck and killed instantly by a fall of roof, about $36' \times 5' \times 3'$, which suddenly became dislodged from between to 'felips' at a height of 7 feet. Inspection and enquiry made.	In a depillaring tection, decéased was filling his basket with the ceal obtained from blasting a "stock", when a piece of roof coal, about 3' × 2' × 1' thick, fell on him from a height of 18 feet. He was killed instantly. Inspection and enquiry made.	Deceased left his working place and entered a feuced off area to rob loose ceal from the sides of some pillurs. He was etruck by a mass of reof-stone, about $9' \times 4' \times 1'$ thick, which fell from a height of 8 feet. He sustained serious injuries to which he succumbed 5 hours later. Inspection and enquiry made	Deceased was dislodging some lease reofetone in a etope when he elipped and a mass of roof, $3' \times 3' \times 1' - 6''$, fell on him from a height of 8 feet. He was killed instantly.	While deceased was loading coal on a hanlage road, a mase of coal, measured in the state of the
	Name of mineral worked.	-contd.	Coal.	Coal	Coal .	Manga- ncse erc.	Coal .
•	Name, eex, age and occupation of pereene killed.	DES-	Banku Bauri, (m.) 28, Coal-carrier.	Mangar Turi, (m.). 27. Loader,	Babulal Pasei, (m.), 37, Coat-cutter.	Hari, (m.). 29, Roof dresser.	Bandhu Bhuia. (m·), 26, Loader.
	Name of owner.	FALLS OF ROOF AND SII (a) Falls of roof—co Kanhan Valley Coal Shivbhajan, Co., Ld. Coat-cutter	Sondra Ceal Co., Ld.	K. C. Pal Chending & Brethers.	Bengal Coal Co., Ltd.	The Central Provinces Manganese Ore Co., Ltd.	Ledna Colliery Co. (1920), Ltd.
	Name an I eituation of mins.	Damna Mine, Bamanyara P. O., Central Provincee.	Sendra Minc, Bansjora P. O., Bihar.	Kajera Mine, Kajengram P. O., Bengal,	Sitalpur Mine, Sitanampur P.O., Bengal,	Balaghat Mine, Bharwell. P.O., Central Provincee,	Ledna Mine, Jharna P.O., Bihar.
	Date and hour of accident.	26th November, 11:30 A. M.	4 A. M.	15th December, 430 p. u.	24th December, 9-30 P.n.	28th December, 10 A.M.	31st December, 6-45 P.M.
	Serial aumber.	67	88		8	<u></u>	<u> </u>

	Which has done of a new motion cutting was being cut down to the cost scen a mass of anal stone. To * 10' and from to the cost scen a mass of anal stone. To * 10' and from the 'for * 4 the's, of 10' from the noise a hopfard o'Siete. I had decembed were buried and killed inside to 'Siete'. The fall expend a so mession also in the wide larpection and enquity make	White a gaged in carrying coat to the loading line a loader was street and fatally frienced by a mass of coal 8 x 2 - 67 w. which fell from the side of a rullar at a forest of 29	Cor Imprecision and enquiry rando A muse feft ha working plake enferce, a casu-cel gallery and abgast to test one benefits a stone band. I provi on of the best about be 2 5 ° x 2 x 4 their, broke away from a builde of I fect and partially bruned has in the assistance universal importes and express within an hour Imprecision.	and continue maintenance devenued with another 10 doing depulsation. There executing per (14th reposition gradians) is not reasonable and the second and the second	equity made While the ettractor of a piller was proceeding a mass of stone tend and evel 4 x 1 - 6" s of relifid against a prop le 1 or and odin legels if The pre parish, decessed at o sa stiting alout - 1 eet away and allel 1 km on the spot	Intercons and enterty that the first and the second
deaths)	180	Conl	Coal	Coal	Coal	eton.
(b) Falls of Sades - (70 deaths)	1 1 1	Gengat Chamar (m), 25,	Chota Sami hn Coal Kora (m) _6, Coal cutter	Definition areo C. at Raw Saher Mahata Co. Ltd	Razbanuta Dhocus, (m.) Cost-cuter	Milkowat Financia (no. 1920 Financia Financia Cath Bro- Cath Bro-
3	Wallt Bhirdh &	East Inlian Coal	Noars Monril Mairs & Co	Dhulanbararco Crail Co. Ltd	Cort of In ha State Registrate Dhocas, Religistrated.	Lo Li
	Tawn Valley Mine, Ghoradongri PO, Gutral Province a	Pararco Mine Jeagers P.O., Bibar	North Mine, Nitres D., Bengal	D'alandarsee Mas, Lathardh P (), Bibar	Kurhnel stee Mine, Gred h P O. Liber	Solity i babrid Mino, Dyes Sign. Imb Brasti Cent al Province of Lid Brastian Province of Lid Brastian Province of Lid Brastian Br
	Oth January,	ICth January,	Met January AP H	th Filtnery, 10 a. u	1sth February, 4.30 r. M	"the Repeated of the second of

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Fatal Accidents during the year 1937-contu.

1						
Serial number.	Date and hour of accident.	Name an ! situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
2.9	26th November, 11-30 A. M.	Damua Mine, Bamanwara P. O., Central Provinces.	FALLS OF ROOF AND SD (a) Falls of roof—cor Fanhan Valley Coal Shivbhajan, Co., Ld. Coal-cutter	DES—co	ontd. Coal .	While, dressing coal from the side of a pillar after blasting, a miner was struck and fatally injured by a mass of eal, 1'—6'* 1' x 1', which fell from the roof at a height of 11 feet. Inspection and enouiry made
82	9th December, 4 A. N.	Sendra Mine, Bansjora P. O., Bihar.	Serdra Ceal Co., Banku Bauri, Ld. (m.) 28, Coal-carrier.	Banku Bauri, (m.) 28, Coal-carrier.	Coal	While engaged in carrying coal from his working place deceased was struck and killed instantly by a, fall of roof, about 36' × 5' × 3', which suddenly became dislodged from between to 'felps' at a height of 7 feet. Inspection and anonity made.
	15th December, 4-30 p. n.	Kajora Mine, Kajoragram P. O., Beugal.	K. G. Pal Chou- Mangar Turi, dhury & Brothers. [m.]. 27. Loader.	Mangar Turi, (m.). 27. Loader.	Coal	In a depillaring cection, decéased was filling his basket with the coal obtained from blasting a "stook" when a piece of roof coal, about 3' × 2' × 1' thick, fell on him from a height of 18 feet. He was killed instantly. Inspection and enquiry made.
09	24th December 9-30 p.n.	Sitalpur Minc, Sitarampur P.O., Bengal.	Bengal Coal Co , Ltd.	Babulal Passi, (m.), 37, Coal-cutter.	Coal .	Deceased left his working place and ontered a fenced off area to rob loose coal from the sides of some pillars. Ho was struck by a mass of roof-stone, about $9' \times 4' \times 1'$ thick, which fell from a height of 8 feet. He sustained serious injuries to which he succumbed 5 hours later. Inspection and enquiry made
19	28th December, 10 A.M.	Balaghat Mine, Bharweli P.O., Central Provinces,	The Central Provinces Manganese Ore Co., Ltd.	Hari, (m.). 29. Roof dresser.	Manga- nese ore.	Decensed was dislodging some loose roofstone in a stope when he slipped and a mass of roof. $3' \times 3' \times 1' -6'$, foll on him from a height of 8 feet. He was killed instantly.
63	31st December, c-45 P.u.	Lodua Mine, Jharna P.O., Bibar.	Lodna Colliery Co. (1920), Ltd.	Bandhu Bhuia. (m.), 26, Loader.	Conl .	While deceased was leading coal on a hanlage read, a mass of coal, measuring about 14' x 5'-6" x 6'-6", suddenly beame dislodged from between two "slips" in the reof
_			~~			at a height of b reof. He was struck by the edge of the fall and killed instantly. Inspection and enquiry made.

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which the floor of a new incline eviltage, say 1/10 and from 10 the flow from promoted and a shall of the flow of every flowed and a shall of the flow	While engaged in everyng coal to the loading line a leader was attend, and facally injured by a mass of coals 8 × 2 · · · 6 · · · · · · · · fell from the side of a quillar at a beight of 23 · · · · · · · innection and ancestor made	A munor left his working place enterel a ciencel gallery and beginning a sirce band a portion of the band, a lond to x 2 or x x y thee, poten and y front on the band; a lond to x 2 or x x y thee, poten any from a longing of y for the plant plant pointed has a longing a lipsported indexes, and not need within an hour. Imported	and structure of practions, deceased with smother parties or an accepting 90 of this tere bong cite liters from a new liter who are suffered from a section with from the continue of the section of the	engraphen Keerrer bergan nyarte any care ac- engraphen Keerrer bergan nyarte any case of respectively of the face of the face of the face of the respective and care from the face of the	I harry britten of the limestone and evertual for of a sub- of an one operary merrecefully e laparel and killed unso persone-agree men and two women largests u and enquery mede		
	Conl	Cont	Coal	Coat	Line-		
(b) Falls of Sides (To double). Blundi: & [15 Saren Nebra Coal (m. 1) and (m. 1) an	Sons culture Gampat Chanast, (m.), 24,	C) ots Sambha Coal North (m.) 28, Cool cutter,	Harr Schar Unbato Im.) 37, Tembr codis.	Rigbunsin Phonis, (m) , Cost-wite	Iharat (m) 20 Ikan Katu (m.) 39	Jawahar Man 1 2 9 Suka 1 200 (m) 25, Ilirdan (m), 30	(m.), 40. Umrac, (m.) 22. Vot. Malts, 47. 50. Mot. Chald, (1), 19.
(D) YValjı Bhimji &	East Indist Coal	Mesers Morayi Muiraj & Co	Brolanbarares C. at Bare Schar Vabato, Coal Co., Ltd.	Gort of India State Bransin Dhoors, Coal Railang Coal (m) , (m) in Department.	Dyer a Stone Little		
Tawa Valley Mus, Choradosen PO, Central Provinces	Bararce Mine, Jealgora P O . Blaar	Sadi Mine, Siterampur P O., Bengal	Bhu'anbar-roe Muse, Pathardib P. O., Bibar	Kurdurdaree Mine, Gred th P O , Libar	Sciatra fabarhat Mine, Dyera Stone Line Dharat Megaun P. O., Co. Lid (m.) Sam F Cent al Provinces (m.)		
63 6th January, 11 r x	54 ICth January, 5 A M	35 21st January, Sudi Muse, AP M Dintempu	éth February, 10 ± m	Leth February, 4-30 r u	26th February. J.30 v. u		
23	75	25	Q		50		

Ageog of workers was restrict in a nowly made quarry, firether, whome most of side weighting about 7 owt, fall on distanced shown in more to which the country with the country made country of states after dispection and enquiry made	Coal	U) hathu	lurica Jtl Col	Jul nor had be o	/
A mase of ceal weight gatout Heart, fell off a slip in the corner of a fuller out to deceased as he was natural with a tasket of course was killed natastly. Irajection and an july much		t basta Jaubi lee	Association It is that a labilet	Shorawari Vine	_g x;
Whit mitra was regign in attail, a stock of each lawer was missed and for if within in their working place will there all withfers. One of them strained to review he took own high themathy by a west food in the whole for first a whole foll from its old, at a largely of 9 feet had be concluded the outers were allowed for each large for outer whose if the cut was a law each work of the outers.	Ę	A M 115.21 Manjirl	I Martiny A	Jenna, P O Johan	or Ard May
Widen any classics was two hours of each again, diffigured in it, where extended of each assignment of the from the form a period of the site measuring the or a larger flucture was bureled affected and two class after the feeting a man improve flucture the early many was	Ş	Its I har Got dy	way.	Heraribagh P. O.	
Made it bloods of each blaster from the rule of a rules under extra under extr	Cyal	(collo D madh, (co.) 42 (col color	I odna (cliner to	India Mices, Jhara I' O, Juhar	
While a keut of mustra and leaders was removing loose coal from a function face in a large querry, a mass of over torder withing about 10 rets fell from a research length of alout levfiet. Beceased was stronk and additionally at da a francia fielder was stronky passed in segretion and experity male.	Ę	I akhirani j ajwat, (w) 18, t sal cutter	The lastern Coal	Hhowra Mines, Jishpara I O, Hihar	5 10 A. 18
Whit. deceased was attempting to lever down & bonder to a least person it on the 6 A query 27 feet deep), and tearly by more discovered and street him his received matter a bone data. A convention of the feet o	Stone	I prati Chamat, 'm 3d Querry en	1 & hazzahio	Jaljan Mines Jaljiani I O , Jithar	77 - 11th April 3 + 16
Deceased was bling a tub of coal when a mass or coal anomating to several tons fell from the side of a pilar amounting to several tons fell from the side of an at all and killed dam metantly. Inspection and enquiry made	Coal	Che he Beldar, (w) 122 Lander	Brothers Ind	Jorta Minie Sja P O.	76 6th April 11 * 11

bling a tab of coal when a mass of coal several tons fell from the side of a pillar

· .		73 186h March, 2 p.M. 186h March, 4 p.M. 186h March, 186h	72 12th March, 7-30 p. st.	71 3rd March, 9 4.11.	70 2nd Marah, 5-30 e.m.	69 27th Rebeimst,	Sound hour of accident.
_	Hinduagh Mho, Balnchagh P. O., Balnchagtap. C., Kinstoro Mino, Kinsuada P. O., Bihar.	0.0		Pattabilrama Mine	200	7, Saltar, v.	d Name and situation of nine.
Mahulin Mahulin	The Bainchistan Chromo (o., Ltd. Sultan. Runeegange (o.) Associate (o., Ltd.)	Newsra, Thenkum Jaguo Ponso		Colliuries Co. An	Burrakur Coal K	FALLS OFROO	
ter. Coal	Mangan. vso Ore Chromie	if, Coat	Kondupadi Sabbada. (a) 3!. Detter.	Apru Rajwar.	kur Cond Kurn Menh. (a) Falls of sides—cond. Kurn Menh. (a) 1.25 (a) 1.25 (a) 1.25	Name, sex. age and occupation of persons killed sor	APPENDIX II—cond. Fatal Accidents during the year 1937—cond.
t. and serferated him from the and serferated him. In the suggest in carrying control serving of a pillar at a lease serving and suggest in carrying controls of a pillar at a lease serving any interest of a pillar at a lease serving any interest of which	creased was bried ty a fall to a bor der price He	While drilling which represents to a some with the sound of a sound of the sound of	the pilluring when a cees to be the when a made, when a manual, when a life, while of the ceed of the	which the state of the	Therease,		d. 4. 1937————————————————————————————————————
While engaged in carrying in a tunnel, a mass of stone council was structed him. Inspection and country in a form a height of about from the side of a pillar struck by a mass of contained serious significant of a pillar at a height of a verking place defects. Inspection and country made, after. Inspection and country made, and the side of a pillar at a height of 12 feet. She says the says of country made, and the same of the says of t	Hereased was buried by a fall of lacese earth, weighing about While steep and	on the fourth from the about a fall of rock in a quarry, from und englisty or extensive design for a quarry, with and englisty made. While drilling what are strained englous injuries buried and the pirey of what are actions injuries. Inspecting the fore which deceased	wis different of the side of a pillar wish billed instantly losters for side of a pillar was killed instantly losters preparatory to losters in the side of a pillar to be for the pillar of the side	biller dieledring three propertion and control and depillaring three properties which extract of a depillaring three properties of which extract of a depillaring three properties and control and depillaring three properties and control and control of a which	The state of the state of		
bout bout de- de- tell us-	injured	nice of the later	of a pillar to follow	devillaring corner of a			•

				7 7	23	ē.
			17,41	A A FIL	IIth April 3 r x	6th April
		- 1/2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /	13 13 AH CT.	Bhowra Mines, lealgona P O, It. ar	Taljhari Mu es Taljhari P O , Bihar	Jogta Mines Signa P O , Bihar
		unje II N Ivil R 1 llar Good,	Iodna Colliery Co	The Lastern Coul	I S Samunto	Mesers, Agaleg Brothere Itd
,	Mary Mary II.	R 1 ll ar Gond, [m) 4)	Culle D sadh (m) 42 Cost suter	Lachtram I slwar (re) 18 (est culler	Peran Chamar e 1) do Quarrie en	Chedre Beldar, (m) 22 Louder
	Ē	Coal	Conl	Coal	Stone	Coal
At any fresh weighty about 10 cmt, fell off a slip in the a street a philaren to decape has be was a assue with a lawbout free if the was kied instantly free ction and at a part of the street of the	While me rewert organists carrierly a stock of look there were thinked not of a few applie to their wishing place and there all with few . One of them trimmed to receive by the act of coil a still which fell from the rule at a height of 9 fest that the retraining rocal feet have down believe the mother were allowed to get a child. As excellent would not have seen at the fertil a specific makes in 2 man.	It the next, elevative was a work on its slope of a quarry dippergat in 11 when wheating of col as, the proceed up from dip to pro a prison of the elevative from dip to pro a prison of the elevative elevati	While the loading of east like ear from the side of a pillar and a stratum save about to be commend a mass of and an analysis of a sea and a pillar of a sea and a capacity of the side at a large of a sea and of exquery made.	While A sail of muser and ladder was removing loss coal from a ferred on the removing coarse and of over burden washing about to even fell from a class at sight of about 10 feet life the life transition of about 10 feet life the trees of one trues and a life behavior of a fell and a fe	While deceased was attempting to leaver down a boulder to "A will be free the case of a quarry, 27 feet deep, it will be received authentic team of block him the received minutes which provided and attack him the received minutes which provided fault from there are find that happened and expury marks and was the rease of its fall happened and expury marks.	Deceased was filing a tub of coal when a mass of coal amounting to several tons fell from the side of a pillar and killed him instantly. Inspection and enquiry made

be a if a rese are testile in a ten a made dontile to be to be to the testile methy mode to appropriately in an it and the appropriately in an intention appropriately in an intention appropriately in an intention appropriately in a second control appropriately in a second contr

Irejec'i.m and

Crust no

e a rank of workers was at work on the alone of a quarry neg at 1 m 1 " where extraction of each was proceed from object one a price of the object of the measures of a large of the control of the sile measures of the control of the sile measures of the control two other mixers received actions mighties Inspec 41)

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		88 5 88		83 86	S.	824	Se	erial nber.
	4-36 A. M.		4 r. u.		8rd June, 7 r. m.	21st May, 4-30 p.m.	aceident.	Date and
-	ine	Lodun Mino, Jharia P O., Bihar.	Gararia Mine, Bansjora P. O., Bihar,	Karari Mica Mine, Judha P. O , Bihar.	Bojdih Mine, Situranpur P. O., Bengal	Central Jharia Mine, Jharia P. O., Bihar.	of ming.	No.
		The Lodna Colli- ory Co. (1920), Ltd.	Mossre. Baijnath Jugalkishore,	K. K. Basu , .	Equitable Coal Co.,	FALLS OF RO (b) Fal Control Jharia Colliery Co.	Name of owner.	Fatal Accide
The state of the s	bamar.			Mangar Meah, (m.), 86,	Chand Moni Mej hau. (f.), 36, Loader.	JOF AND SIDES—streement Mahata, (m.), 29, Earth-cutter.	Name, sex, age and occupation of persons killed.	ints during the year 1
While deceased was filling a basket with coal in a puller bunp, becaused was filling a basket with coal in a puller proparatory to depitlaring, a bout 5 to 6 over to fall from the side. Basket was caught by the fall and fatally injured. Improcessed in a pallery and enquiry made.		25' thick, a miner was pillar was proce of coal which fell on him from the side enquiry made.	gullery when a fall of side took place. He Coal. We.:	Withing from the side of a pullar at one obtained from the side of a pillar at a height of 12 font fall expossed a slip. Inspection and enquiry metantly. The Mica. December 1. December 1. December 1. December 1. December 1. The mica.	Mej- Coal While a loader was filling.	Coal		Fatal Accidents during the year 1937—contd.
ecased was cased was the pallory lilaring - a locaned lapoction	aspootion and	ired by a Beam	He was carret the Heavister of the Heavi	al obtained from coal fell without ight of 12 feet instantly. The	on in a quarry an sufficiently, 24' × 10' × 3', d been properly bare occurred.	neks.		

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	8tl September 170 P M	2oth August 12 30 P M	22ud August 2 30 r x	2I August, 7 40 A M	ISth August IS No.3N	11th August 5 30 r m	6th August 1 p m	26th July 2 F u	21th July 5 30 F at
	West Jamura Mine, Cha anpur P O, Bongal	h istore (Butragarh Section) Mins Kuennda P O Bihar	Pretora Mine Charanpuv P O. Bungal	Pandedih Mira Sijua P O, Sibar	Mudichb Mins Siyus F O, Bihar	Mikuapalari Mus Jaumri Telaiya P O, Bibar	Dhariajoba Mine Kusunda P O , Bihar	Kargalı mine Bokaro P O Bibar	Jemadoba Mine, Jealgora P. O., Bibar
	West Jamuria Coal Co Ltd	Raneegunge Coal Association Ltd	Secupar Ceal Co	S N Daw & Co	Borrakur Coal Co , Ltd	Chatturam Darasuram	Dhariajoba Colliery	State Railways Coal D partment	The Tata Iron & Jharn Dass btsel Co , Ld (m) 31 Contents
	Yaiho Mean (m.) 38, Louin	Hasu Bunti (m) do Cost cuter	Debart Lodh (m.) 26 Cost ester	Anand Ram Bilaspuri (m.) 31,	Eshan Bhuys (m) 32 Laster	Brdhan Veab (m) 21, Dump picking cooks	Sital Pashs (m) 3 Coal-cutter	Falbanths (f) 30, Loader	`
ľ	Coal	Coal	Coal	Coal	Coal	Місь	Coal	Coal	Coal
- 6	While locaing to line slepilistins acts, a loader was tripled in by a new of tool about by line in weight which fell in expectedly from the side of a stock. He sustained inputes which groved fatal cleven days later. Inspection and exquiry mach.	Dering the extraction f a pillar in a secu 7—0° thick is miner was uniscentiting when a mass of coal weighted about 16 ext. fell off a pronounced clear go plane and also which were at right at glo but and he estimated fata univers. Inspection and inquiry mane.	while deceased was dressing dawn sile cool loosened by hashing has cowhear all jou and he fall on the floor of hashing has cowher all jour and he fall of 8 fe and the freeh han like subtained sorrous subjects to while he accommised 3 hours later. Imprecions and inquiry made	Deceased was killed by a fall of a mass of earth from the side of a quarry at a height of 7-6' improviou and auquity made	While a moner was dre engethe stade of a pillar 11 a Ampillar, mg area he dis logical a mass of coul from a height of \$1 feet. Heccased who was attending about 10 feet sway from the pill t abourap a light for the muner was stratch by a pages of coul \$2 \times A 1 - \times 1 and fairly 10 steel may to a shade or the made.	licecased went jute an abandoned occavation to recover has pick and while there was buried by a mass of earth 1. « pick and while fail from the aid and a highly of 13 feet to a shirty which fail from the aid and on quit	White a miner was expected in writering floor coal in a year of the wash and set in the interest in coal fell from the six any milering across came much present or coal fell from the sixth and a hought of short buff it is was sectionally injusted and disally months later. Inspection and enquity made	Decemeed ws killed in an open working by a piace of stone, I-6 x 8 x 6 which fell from the side at a height of about 90 feet, inspection and inquiry made	While a mare was standing on a ladder levering down side coal fatter hishelds, he overhanced and fell down the fladder below to could recover head a mass of coal fell from the side from a lagified houte feet and medical upons which proved fatal fee house side in large too and acquiry made

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Tatal Accidents thring the year and strated with the sense of many serviday. Column Colu	Apart
The state of the point of the p	

ı	€ 60	ឆ	-	110	18	106	107	301	106
		4th \ovember, 5-30 P M	4th November 5-0 r m	let November, 2 ± H	29th Octol er,	26th October, 2 p n	ligud Octol er J O r M	22nd October 12-50 p M	21st October, S 45 r M
	10 20 x n Design P O Lengal	Dharwjoba Mua Kusupda P O Bihar	Kendwadah Man Kusu da P O bahar	Dhemo Main Mine Sitaran pur P O, Bengal	Jamurı Mine, Charapur P O Bengal	Bararet Mille Jesigora P O Bibar	Serampur Mu.a Giridh P O , Bilar	hatras Chosto lib Mine hatrasgarli P O, l ibar	Allusa dorth Mine Kunnda P O, Bihar
	The New Bear bhoom coal Co Ltd	Diarayoba Collicry Narayan Chamter Collid (m) 35 Collid (l) Miner	The East Indian Coal to Ltd	Dheme bain Coal Co, Ltd	Equitable Coal Co., Lodat Maujhi Ltd. (p1) 39 Stone-dress	The East Indas Luin East Coal Co. Ltl (1.) 10	The Government of Bandhu Meal India (m)3 Cost ent r	Burrakur Cosl Cn , Ltd	The Ronsegunge Basa Mamphi Cosl Association (m), 32 Ltd Leader
	Sabelatausand Lall (m.) 44 Mining Suntar	\arayan chamur (m) 35 c 1 Miner	Bhondu Rajhowar (1) 25 Lorder	Padam Bahidur (m) 30 Cool culter	Lodat Maujhi [91] 30 Sone-dresser	Lula Fai (re) 30 Cost-cutter	Bandhu Mesa (m)) Cost cut r	Dharam Malla (m.1 32, Cont-cutter	Basu Manyhi (181.), 32 Londer
	Con	Cont	· lien	Conf	604	(oal	Cual	Coat	Coal
	Deceased was drawing loop real trem the aide of a gallery is feet high when a piece of coal fell on his foot inflicting arous a puree. Exhaumour superread and he died eleren days later hisportion and enquery made	While decoased was resting near the side of a piller, a p eco of each 2 et ev. fell from the side at abught of ell feet and streec him. He sustaned serious injuries and died 30 bours later. Inspection and enquiry made.	White a looder was 1 sthing an emity tab along a lovel roal a mass of each wighing short of ere fell from the sito from a back of to fact. He was killed instantly Ineque ton ant tengency much.	While deceased was carried, a harket of coul a mass of coul, y ar x : — full on the from a surveyable dup 'n the connect of a puller at a height of lafes. He sendened untrees from which be due't seven honer lafer fuspection and sequery made.	A stone dresser was stuck and fatally naured when a small piece of stone fell measurefully from the corner of a stillar from a height of θ_d first Jossetton and suggest unde	While a mater was energy, I in cutting a recess in the said of a juliar at the said of a her stopping a mass of only verging about 2 form for if for the said in automod fattl superies furjection and cannot made.	In a read-sp 10 ff highs miner was standing, on a ledder dressing the side save the ord with a crower. He over leabasted mid felt off the ladder and a block of stone, 1—6, x f x f), which he had been dreaming fill on he left the properties and departer sold.	While etracting a 'took of coal o' feet high, that was While etracting a rep, in a callery a muse was street, a task if coal 3 which had divisiged from the a took is a discovered account singures to which he and counts is fix howers later. Inspection and conguery made	A gang of mace and loakes work into a gallery which was feeled aff became the jude was chargeons about to the promote of a mail fault. They robbed the sude and corner a spilar and which they take the throughout made day to be 1—2. Fell off the fault without one of the loaders usually happened action that on part of the loaders usually a long such as all on part of the loaders.

APPENDIX II -- contd.

Fatal Accidents during the year 1937—contd.

l 91c		Seria um		r.
24th November		acoident.	Dato and	
114 24th November. Jamadoba Mino		of mino.	Name and attended	
FALLS (Name of owner.		
FALLS OF ROOF AND SIDES—contd. (b) Falls of sides—concld.	or persons killed. w	and occupation m	-	(, , , ,
S—contd.	orked.	Nume of mineral		CU////,
	Cuuse of accident and remarks			î.

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24th December, Lalki Samscharia Mino, Chatturam Harsan-Budhni Jolahin, Jhumri-Telalya P. O , ram. (1.), 80.

Mica.

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21st December, 12-10 P. M.

Gua I con Ore Mine, Gua P. O., Bihar.

The Indian fron & Steel Co, Ltd.

 $\propto \left| \begin{array}{c} \mathrm{Bligrat}, \\ (m), 39, \\ \mathrm{Mucr.} \end{array} \right|$

Iron Ore.

Contrary to orders decensed was removing ore from a bench in a quarry when he released a builder, 4' × 3' × 1'—3' the side Ho was killed almost immediately. Inspection

While working in an exervation 4 feet deep made in an old dump, deceased was buri d by a fall of loose side. She was dead when extricated. Inspection and ouquiry made.

(m.), 'Iō,
Domostic Miners. Somar Kahar,

servant.

116

Dhram Channar, (m1), 30,
Dukhi Chamar, (m1), 20.

The three deceased were killed by a fall of side in an open excavation for mica. Inspection and enquiry made.

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,	;	Ĕ		F	Ħ	121		120	119
Jay Ama		124 Soth April, 1-0 4 m		4th October	26th September 10 r m	20th August 7 50 A M		27th May, 5 F H	119 30th March, 12 Noon
Methani Mine Sitarampur P O , Bengal		Kustore Muce Kusunda P O , Bihur	H	Ghusak Mine Kalipahan P G , Bengai	John Mine Jhara P O , Bihar	Banks;mula 7 and 8 Pits Mino Postaline Dengal Bengal	IN SHAFTS	Rahhala Mane Kalipahari P O , Bengal	Dobar, Mine Iharia P O , Bihar
Aldih Coal Co Ld Bathan Dhoba (n.1 29, Labourer	IN SHAFT (MI	The Fanergunge Coal Association Ltd	N SHAFTS (FALLE)	Gamak Coal Co,	The Ledna Colliery Co (1929), Ltd	Ltd Coal Co	(WHILST ASCEND	Rath sty Collectes Led	IN SHAFTS (ROPES AND (Ecstary) Pita aber, Kurda Purta, (a) 45, Charge and
Barhan Dhoba (m.) 29, Labourer	IN SHAFT (MISCELLANEOUS)-(4 donth)	Shamlal Kal ar (n) 2 Typier Tycicyman.	IN SHAFTS (FALLING DOWN SHAFTS)-I death	Kashı Eourı (m.) 30 Ossetter	Murat Barbs, (m) 50, 1 117,	(I) Kalt Mochi (a), 23 (2) Dawidob Pass (m) 20 (J) Bhondu Pass (m) 25 (J) Phondu Pass (m) 45 (m) 45	ING OR DISCENDE	Nals Weak (m) 22 Contenter	TANE
Coul	deaths)	Cord	TI death.	Conf	Coal	Coul.	G BY MA	Coal	Coal
Decembed was standing unides edge at the top of a staff recurring ratio which were burnt found where a rail, which was hauded to him shipped and struck him. He sustained senses surpues to which are second-bed seven days laker Impretion and eviquety made	onen winnen vielsenen and eminet mine	While decrease I was helping to operate a single this rether typies at the top of a single por 10 ft deep he single and full through the open platform of the typies into the shaft. He successible the typies most hire yield shaft if a successible the decrease in the platform and a date and the platform and a date in the platform and added oct the typies, the secondard would have		nucanty inspect n and organy made. While seconding a shirt 328 feet, deceased fell ont of the ongo to the bottom of the shaft and was killed nurantly inspection and enqury made.	While according a making chaft a firter sat on the rim of a Lubble and at a middhaft most where there was a landing platform he founds a grader and fell pout of the kabble to the bottom of the shaft and stance of 150 feet. He was killed	While lives pumpung were according a shaft [22] feet deep in a mixing backet the low of the blocket levels resulting in the lives of the lowest levels resulting in the lives my being them out in the lives and a shaft of a lives a live was a live of the lives and the lives a lives were shifted in the lives of the lives a corporate thickees coupled with sheek Inspection and enquity made	SHAFTS (WHILST ASCENDING OR DISCENDING BY MACHINERY) - 5 double	Tae shift gold feet dury a cope continuing its premain in cleaning deceased about that parts about \$10 test about the about the continuing about the continu	NCO—2 death: Because yea heary coast in a cone backet up a sukung shaft. Becaused was heary whom this size windom prop Y chancter broke and he off to the hotices of the whaft who and and off to the hotices of the what he amazumed as east injuries to which he succumbed five days later Lepselman and supring made.

Fatal Accidents during the year 1937-co.id.

129	ទ			Serial number
6th October, 10-30 A. M	3 P.M.	ill A.m.	19th Juno, 5-30 r.n.	Date and hour of accident.
Ena Mine, Jharia P. O., Bihar.	Modern Satgram Mine, Kusunda P. O., Bihar.	Mosaboni Mino Ghatsila P. O., Bihar.	Badia Mino, Ghatsila P. O., Biliar.	Name and situation of mino.
SUFFOCATION North-Wost Conl Co., Ld.	Modern Satgram Coal Co., Ld.	Indian Copper Corporation, Ld.	IN SHAFT (MI Indian Coppor Corporation, Ld.	Name of owner.
SUFFOCATION BY GASES—(2 deaths). th-Wost Coal Mahabir Singh, (m.), 47. Akal Majhi, (m.), 85. Shaft-sinkers.	Sndan Bauri, (m) 21, Labourer.	Abdul Gafur, (m.), 47, Machine shop Mistry.	in Copper Dubraj. reporation, Ld. Tramaer. Copper December of the distant of t	Name, sax, age and occupation of pursons killed.
	Coal .	Copper .	Copper .	Name of mineral worked.
After firing I sumpling holes each containing 14 ozs. of gelignite in a sinking shaft, 126 feet deep, the kibble was run up and down for half an hour to clear the smoke. The sinkers that resumed work and worked in the shaft for three hours. They were affected by nitrous exide fanos, the extreme symptoms developing several hours later. Two of them afterwards died and the others recovered. Inspection and inquiry made.	While a column of exhaust and delivery steam pipes was being lowered down a sinking shaft 350 feet deep by means of a crab which, the book of the pulley blook suddenly broke, allowing the column to fall down the shaft. Deceased, who was watching the lowering operation, was struck by some of the detuched pipes and fatally injured. Inspection and enquiry made.	While engaged in solecting the sites in an inclined shaft for putting in additional rollers, deceased was accidentally run over by the descending skip and fatally injured. Inspection and enquiry made.	Peccased with three others was working in a shaft from a cradle suspended from a crab winch. As the cradle was being lowered, the gearings of the winch became accidently disongaged and the cradle despite the brade descended the shaft through a distance of 165 feet and plunged into water, about 15 feet deep, in the sump. Deceased was dead when recovered. Inspection and enquiry made.	Causo of Accidout and remarks.

Bihar, P Bihar, Datla Min 1215 P x C P	ġ <u>F</u>		2.30 F M. Kekri P O . Rajputana	3rd March, Kathera St 7-30 a m Rayshmur Madras	9th February, Kalyanpu 1 P M Mine, Banpu Banpu	IIth January, Chandametta M Parama P O, C P	
	s. P O,	Mine,		ons Mins, idry P. O,	Kalyanpur Lime atone Mine, Banjari P. O , Bihar	. 10,	
Amalgamated Coal	The Associated Cement Co, Ld B K. Chakraborty	Newton Chickin Collierios, Ld	Labh Chaud & Co.	A Islahmanaawamj Nasdu	Enlyanpur Limo Works, Ld	Pench Valley Coal Dulley Mehra, Co., Ld (m.) 32, Coal cutter.	BY EXPLO
	Banka, (m), 3t, Shot firer, (I) Dibakar Baur,	Mothal Gach, (m) 23, Cost-Culter,	ffardeo Daroga, (m.) 34, Shot firer.	Chella Subbadu, (m.) 45 Slove breder,	Dalkeshar Mallah, (m.) 28 Shot free	Dulley Mehra, (m.) 32, Coal cutter.	BY EXPLOSIVES—(15 deaths)
	Lime- stone	Coal .	Миса .	Stone	Lime- stone	Coal	
greated gritty, a shock for and four others were secondly based by an egit on the against for groups of the fact as a manufact of their majures. Ins, extens and enquity made ambied to their majures. Ins, extens and enquity made through a faces and went to a gallery where a back had derugh a faces and went to a gallery where a back had	While a shot kiels was bung charged, a percasture explosent of the grapewise too, bluos and extensity nutried the shot first and two other pers may atting near him 'the shot first section of the person as atting near him 'the shot first secondard to his nutries as do not set as the too condent. Inspection and sequity made	heceased was assisting has companion in stemming a shot- hole charges with gumparder, sense the shot exploded auxil- dataly unjoid him. It is presumed that either of them maderestabily not fine to his shot form the open lights that were burning closely inspection and enquiry made	While charging a shot hole a premature explosion of gun- powder took place and fatally injured deceased. Inspec- tion and enquity made	Dernig Baking operations decessed, who failed to take shall be the state of the sta	During blasting operations a piece of stone, 5 x 5 4' was projected and extract deceased on the head and killed him instantly. Inspection and enquiry mude.	Deceased left has working place, passed through a feuce and entered an arm where blesting operations were being curried in the was stream and killed instantly by a piece of coal proposted by the slar! Lagrention and enquiry made	

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made. Inspection and eng		_	,			
While deceased was hand-shunding nu empty tub at the bottom of a handage incline, he was eaught by a train of	Coul .	Bhunnilal Dhobi, (m.), 20, Tub-filter.	Newton Chickli Collieries, Ld.	Newton Chickli Mine, Parasia P. O., Central Provinces.	9.50 p m.	130
		HAULAGE—(33 deaths).	HAUL			1 10
A piece of stone was projected a distance of NT3 feet during bashing operations in a quarry and struck deceased who was retiring to a place of safety in an adjoining quarry. He received injuries which proved fatal five days later. Inspection and enquiry made.	Iron Oro	Banua, (m) 21, Master.	The Indian Iron and Steel Co., I.d.	Gua Iron Ore, Ropeway (H. D. Bara Section), Gua P. O., Bihar.	5-15 A.M.) ii
White removing loose rock in an underground gallery after blashing operations a misfired charge was expleded, resulting in serious injuries to deceased to which he succumbed twenty days later.	Mica .	Eruvura Yallagudu, Mica (m.l. 25, Cooly.	maih Garu,	krishna Mica Mino, krishna Mica Mino, Sydapuram P. O., Madrus,	4-30 F.M.	149
While decembed was assisting in blasting operations, with liquid exyren explosives, one charge in a round of five exploded prematurely and he sustained injuries which proved fatal. Inspection and enquiry made.	Conl .	Akln Muhuto, (m), 30, Shot-firer's cooly.	State Railways .		6 A.M. 7th December.	141
Deceased went to a place where a reislire lad occurred and religited the fuse of the charge. The shot bung fire and as he was returning to the place the shot exploded. He sustained fatal injuries. Inspection and custuity made,	(,01)	Farkhalo Kole, (ii.), 32. Coal-cutter.	cern, Ld.		2.30 pm.	140
Decended delayed after lighting two shots in a gallery and when the charges exploded he sustained serious injuries to which he succumbed shortly afterwards. Inspection and enquiry made.	Coal .	Parum Gandu, (m.), 50, Coal-entter.	Hingir Rumpur Coul Co., Ld.	Rampur Aline, Rampur Colliery P. O, Orissa. Sinfili Mino.	1 P.M. 3rd September,	139
	ontd.	BY EXPLOSIVES—(15 deaths)—contd.	BY EXPLOSI	7.	14th America	135
Cause of accident and remarks.	Name of mineral werked.	Nume, sex, age and occupation of porsons killed.	Name of owner.	Name and situation of mine.	Date and hour of accident.	Serial
					į	Ι <u>Γ</u> .

			=	- 3			145	14
	_		V 17	Algorithm Algorithm Co.	Hith bet mess,	toth I thrusey,	16th kebruary, About t a m	6th February, 3-45 A M
		to the line of the	Vanil Min. Vanil 1 min. Vanil 1	Alta la Bro.	Heli bel tuete demuela blec. (incentue to.	Loth I. brusty. Lohins Nos 4 and 5 Frie Zolins Colliery Co. Mires P. O. Jihars P. O. Jihars P. O. Jihar O.	hast Kham Jhar a Mine Jharu P O, Bihar	Gopalichuk East Muc, Gopalichuck Jharia P O, Eibrir
1	th the	It!	Ailfal Cunt Co, Ital	Bengal Nagpur Dulale Railway Co., Ltd (m)	Equitable Cosl Co Ltd	Lodra Colliery Co (1920), Ltd.	Eset Elas Jhara Colhery Co , Etd	
-	Michammad liumann (m.), 25, Labourer	Ubatta Manjbi, (191). Il Cool cutter	Alaha Raur, (m.), 26, Telleyman	Dukale 22, (m) 22, Cost cutter	Streemate Boares, (f), 15 Labourer	Naku Kanu, (ra.). 26 Haulago engano- man	Manik Meah, (m), d's Transser	Coal Talaldhar Dosidh, Coal (m.), 27, Trollegman
	Lock salt	Coal	Co.d	Coal	Can	Coal	Coal .	
	Hock salt While paints n leaded toboung farry flat track deceased slipped sed ful do no no rail. He sustained some internal inquires and deed almost immediately after the accident immunication and enquiry made.	While a set of IS take was boung lowered down a gradient of I am has the forest fruit take get unouppled and raw wild Decement who was pushing an empty tab. 100 feet bulow, was struck and kinded may tably. An unsutable type of compling was the cause of the course Inspection and compling was the cause of the course.	Three teddhyshan were strop lug to read a logical thin when treedlessilly laured adverse, and recaled decembed spansk a level. will life suchasid, of trees a payment to the laured and the day a fair. The trees has no there alteraged do or and the bit is a place where there we mentioned observator to review the ratio and solder like person and cognity made.	While deceased was pushing a set of three empty tube on a trailing he was overtham by another set of five uppry tube and received section suprises to which he succumed if days here Inspection and suquery nade	In attempling to get alour of a moring art aloccased crossed to basing the tripped over the endless rope and weatered by a tub bloometined upporter which proved fatal 5 boars leter Improvemental enquiry made	Decased attempted to inhore to the drum both of u manual and representations while set of four copy this, which was boughtened down as well of pour and the set of th	Deceased was standing by the side of a framing when a 1th, which was running down a gradient of one in 60 overturned at a curre and he succined injures which proved fatal largection and majoury made	A trallegram was relater yet a brailest roul on a set of touled the by standing on the budges of the touleng the, who a has be denugled timber support phend stores the road. He was thrown over the tub and anotherd some unpursue from which he afterwards dued limpetion and outpury made

	E Data		Fatal Aecid	ents during the year 1:	Fatal Accidents during the year 1987
	Serie num	Namo and situation of mine.	».	Name, v. 1, 650 and eccupation of persons killed.	.
-	152 7th May.		НАП	HAULAGE—(33 double)	
	15 v.x	Parasin P. O. Central Provinces.	Newton Chickly Collieries, Limited		Coal While awaiting the arrival of many
153	3 25th May,	Sripur Mine, Kalipahari P. O., Bengal.	Lodun Colliery Co		united Affuillar act and dealers in the first discovered was upacient the stationary tube. He sustains down and humber two to which for surrounned the following day. Indection and outputs made
164	29th 3-45 p.u. May,	Victoria West Mine, Barakar P. O., Bengal.	New Beethboom B	Biora Noth Missir,	
155	4th June 1937, (ine,	5)	
				Trolleyman, Coal	While a train of 11 leaded tube was about down a haulage plane dipping at 1 in 5, the will be to
156	23rd Juno, K	Khowra Mine Klowra P. O., Punjah.	Government of Bur	Ę.	wild. Decembed, releasing the leading ly trawbur of the the the train was lowered was struck by the range the points before fatally injuied. Inspection and enquiry made,
				·	-
ļ)		•	**************************************

Machah Maro Abrookker Addet Chestis Goad Coal Coat Co	th August 2 p u	62 Srd Angust 11-30 * x	91 2nd August, \$-30 r at	60 26th July, 4 v m	59 23rd July 12-15 p yr	58 7th July, 12-30 r	157 27th Jnuo 2-15 a w
Alchi Coal (Ca) Enter Ocad (ca) 20 (ca						×	
mand do on the main knaker could of a mich in salars roud of an incline discosed was run or control of the more and of hold this. It is measured as a mement of Malar, like the control of the morning set Impedient and the transmit of Malar, like the control of the morning set Impedient and the transmit of Malars, like the control of the morning set Impedient and the state of the Malars, like the control of the morning set Impedient and the state of the Malars, like the control of the morning set Impedient and the control of the morning set Impedient and the state of Malars, like the control of the morning set Impedient and the control of the morning set Impedient and the control of the morning set Impedient and the control of the morning set Impedient and the control of the morning set Impedient and the control of the morning set Impedient and control of the morning set Impedient and control of the morning set Impedient and control of the morning set Impedient and control of the control of the control of the morning set Impedient and control of the contro	Loyabad Mine Bauspera P O , Buhar	anura Mise Chara pur P O , Beugal	Estreli Mine Bolasto P O , Bibar	Sitarampur P O , Bitarampur P O ,	Jaubordeo P O , C P	Khewra Mue, Khewra P O, Funjah	Mabakali Miue Chanda P O , C P
Ocal On the mait brainer and of an induce deceased was ran of the control of the property of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the morning set Impection and the control of the morning set Impection and the control of the morning set Impection and superior and superior control of the morning set Impection and superior control of the contro			<u> </u>	Coal G	Amalgamated Coal- fields Ltd		Aboobskar Abdul- rehman & Co
On the main builder read of an incline, deceased was run of the analysis and color of the color of the analysis and color of the analysis and color of the analysis and the statement of the analysis and the statement of the analysis and the anal	Nathun Ass., (191) 83 Laboures	Kisto Dass, (m) 82 Tub-dector	٠ 	Fam Charan Mondal (m) 39, Transser	(1) Bhauo Ahiran, (1) 24 (2) Vathri Ahiran, (2) 22 Tub filters	Mold Albar, (m) 18 Maser	Chottn Gond (m.) 20 Coal filer
	Coal		Coal		Coal		Coal
159	While two trol oys carring long lowered down a hank a road dipple to ever follows: the two trollows: was accompanying the trollows: a lunwed by the zunaway trolley injuries ax days later. If the truggether by means of a stout chain been avoided. Interection and enq	While I sandhiniting some leader leaded who standing on an other leader of the sandhining on an other same a temped to a visionity as that both the thirt and 20 years in a saledness of the same at was attempting to cross the lun- which proved fatal two days later made.	While a tipping tab load: I with at along a fram into true book as along a fram into tree. A pice of six relied down from the top bunch a decased from a height of about mutius which proved fatal two and enquiry made	While a set of loaded tuba was being ground haulage road with a graducture to the cannot denifed at a curve by a surplement when was riding on the was thrown off and fabally my enquity made	While a set of aix loaded tubs was be with a variable gradiout, the rope i set to run back. The deceased a way take and fatally sufered and	A loaded tob ran over the feet of d injuries. Tetanus supersened and h the accident. Inspection and enquir	On the male bankage road of an judy over by an orthogan set of low led tuil inpures and died within a twe min that he met with the accelent whill the tram hee in front of the movem coquery made

Ental Accidents during the year 1887—contd.

169	168	167	166	165	164		Serial number	
23rd 2-30.	19th 3.30	7th October, 9.0 A.M.	1st October, 5-30 A.M.	15th September, 10-10N.	26th August, 5 r.m.		Date and hour of accident.	
October, Khowra Mino, Khowra P. O., Punjah.	Jaghir Mine, Sulem P. O., Madras.	Kustoro Mino, Kusuuda P.O., Bihar.	Datla Mine, Junnordeo P. O., C. P.	Mosaboni Mine, Ghatsila P. O., Bilmr.	Sando Govindpur Mine, Pandaressur P. O., Bengal		Name and situation of mine.	
Government of India.	The Magnesite Syndicate Ltd.	The Rancegange Coal Association Ld.	Atualgamated Conl- fields Ltd.	Indian Copper Corporation Limited.	Sunda Gobindpur Collieries Co	HAULAGE-	Name of owner.	
Budha, (m.), 40, Transser.	Perunal Annigoundum, 1, 35, (m), 35, Cooly.	Paniram Bilaspari, (m), 22, Coal-cutter.	Nirpat Lodh, (n.), 30, Tranmer.	John (m.), 30, Fur ip attendent.	Kirhore Pasei, (m.), Di, Understand Transact,	HAULAGE—(33 deaths.)—contd.	None, wex, age and econpation of persons killed,	
Rocksalt	Magnesite	Col .	Cont .	Cupper .	Cua .		Name of nativeral worked.	
Docased was walking between two loaded tubs which were in motion. He was overtaken by the rear tab and was injured seriously. He sucommbed to his injuries six days later. Inspection and enquiry made.	Permuni Annigoun- Magnosite Decembed was knocked down by a trolley on a transline and fun), 35, Cooly.	While a miner was walking at the side of a level handage read the first man sear of a set of 8 loaded ears attached to an electric locomotive weams detailed. It was k; ocked down and received internal injuries to which he succumbed 7 days later. Inspection and enquiry made.	While note must ying nelections a handing road with a gradient of about I in fo, he was ran over and killed by a loaded tab which gravitated anattended down the road. Inspection and onquiry made.	While an empty ship, weighing about & east, was along to be lowered in a sinking where display at 10% the rojectoke inside the rocket of the empire, and the skip ran wild. Herewell who was going down the winze, was struck by the randway ship and hilled instantly. Inspection and enquiry made.	On a transition sloping at I in II, decembed at a located cubin motion and then ranged its front wheel. This cannot the rule to empelie and it caught deceased a causet the side of a pillar, hither has it stantly. They of then and compily made.		Cause of accident and remerks.	

176	177	174	- 5	- 5	= 2	
lst January 3-50 p m	20th February 5 & M	31st December, 12 Noon	6th Decamber, 11-15 4 n	22nd Novamber, 5-50 p m	llet November. 11 85 p m	Oth Novembers
Bolaro Mine Bolaro P O , Binar	Topost Mine Topost P 0 , Bengal	New Sadamdik Mine, Pettardi P O, Bibar	Banksamula Mine, Charaupur P O, Bengul	Baracce Mine, Jealgora P. O, Bihai	Sitaranpur P.O., Sitaranpur P.O., Bengal	170 10th Novembers South Tiera Mine, Glar at Jhans P O Bihar
SUNDRIES UN EIR and B	UNDERGROUNI Baners Ceal Co., Ld	New Fudandih Colhery Ltd	Bengal Coal Co.	Last Indian Coal Co, Itil	Sitalpur Coal Co, Ltd	South Thera Colliery Siban Bosad, Co , Ltd (ss.) Su, Hockness
SUNDRIES UNDERGROUND—(21 deads) 1 B and B Funco Tauti, (cal (m) 45, (cal deads)	UNDERGROUND MACHINERY—(I d cail : nurse Ceal Co. Blacker Bourn, Coal Coal Coal Coal Coal Coal Coal Coal	Harı Kam Mabato, (m.), 30, Triss Lus espaner	Dukhu Panika. (m.), 37, Loader	Parbil Mahato, (m), 28 Cost-corrier	Kalo Manjhi, (m.), 52 Cost-cutt	Sibau Dosad, (m.) 30, Nochran
dcaths)	Lenth) Coal	Coal	Coal	Conl .	Conl	Coal .
While attempting to climb down the storp side of a quarry deceased massed has fool hold and fell through a distinct of the feet attempting which provided the feet He candidated excess approve which provided and school through the feet attempting	Decessed was sleeping max a translate in the control of the control that in color is shough the read him and the was run over. It impared to make the entered partity ancounted and inquiry made	Aget of coche copyt clair, which apparently had not here consisted to the abandage roop, were burg copyered over the bessel of a handage roop were burg copyered over the house of a handage rood when the time ran with trud family numeric directions and enquiry made	On a dreet baulige read dipping at I in 6, a trammer left an empty cub shading but neglected to ryag at properly. The trib run wild said failty struck deceased who was balled near the bucom of the plane. Impetion and enquiry under	A set of ten only tals was being lowered into a positive disputing at 1 m s when the first four the become derailed the littled industries of the first four the control of the first disputing a trop when followed track decreased who was futting down 20 feet says. He enthined in just to which he meconified a few hours later, Inspection and sequity make	While a set of ter supply the was also levered down a gradient to the thirty of the term to be to make for the term of the set of the term of the term of the downed who we aching there for to 17 to 1 a. Impection and enquiry made	While a set of three full tube was being lauded up a governor at in a, the rope broke and itseture run aman. Do ceased was freely and deality injured by the minaway tube languerous and enquery made.

Fatal Accidents during the year 1937—confil.

			167		165	5 07		Seria	ber.
2-30. F.M.	9-30 F.M.	9-0 A.M.	ber,		15th September,	zota August, 5 P.M.		of accident.	Date and hour
r.n. Khowra P. Ó., Punjab.		Kusuda P. O., Kisuda P. O., Bihar.	Datlu Mino, Junnordeo P. O., C. P.	Bihar.	Mosaboni Mino,	Samla Govindpur Mino, Paudavesa ar P. O., Bengal.		of mine.	
Government of India,	Tho Magnesite Syndicate Ltd.	The Rancogungo Coal Association Ld.	Aunlgamated Coalfields Ltd.	poration Limited.	Indian Copper Cor-	Samla Gobindpur Collieries Co.	HAULAGE	Name of owner.	
Budha. (m.), .40, Tranmer.	Pornmal Annigoundan, (m.), 35, Cooly.	Puniram Blaspuri, (1011), 223, Coul-cutter.	Nirpat Lodh, (m.), 30, Trannuer.		Tobu	Kieh (m.)	HAULAGE—(33 deaths.)—contd.	Name, sex, age and occupation of persons killed.	
Rocksalt	Мазповіtс	Coul .	Conl .	Copper.		Con		Name of nameral worked.	
Decoused was walking botween two loaded tabs which were in motion. Ho was overtaken by the rear tab and was injured seriously. He succumbed to his injuries six days later. Inspection and enquiry made.	Porumal Annigoun- Magnosite Recased was knooked down by a tiolley on a translino and sustained fatal injuries.	While a miner was walking at the side of a level hanlago road the first mine-car of a set of 8 loaded ears attached to an electric locomotive became derailed. He was knowled down and received internal injuries to which he succumbed 7 days later. Inspection and enquiry made.	While a transcer was lying asleep across a hanlage road with a gradient of about 1 in 60, he was run over and killed by a loaded tub which gravitated unattended down the road.	While an empty skip, weighing about 6 cut, was about to be lowered in a sinking winze dipping at 30°, the rope broke inside the socket of the capping and the skip ran wild. Deceased, who was going down the winze, was strack by the made.		On a transline sloping at 1 in 12, decembed art a loaded table motion and then spragged its front wheel. This caused the tub to consider and		Cause of accident and remarks.	- CONTR.

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_	lst January. 3-50 p m.	20th February, 5 a m	Slat Decomber, 12 Noon.	0th December,	22nd November, Baracce Muso, 5-20 p x Hhar	21st November. 11 35 P M	6-15 P M
	Bolaro P. O , Dibar.	Topost Mine Topost P. O., Dengal	Dow Sudandh Mine, Patharil P. O., Dittar	Dauksumis Miss, Charapper F. O., Bongai	Baracce Muo, Joalgots P. O., Hibar	21st November, Sitshpur Mine, Miss r M Brengal	0 10th Novembers South Tyen Mine, 6-15 P M Jiarra P. O Jihar .
	SUNDRIES UN E I R. and H N 1.	UNDERGROUNI Banera Coal Co,	New Sudamdib Collety Ltd	Bougal Coal Co.	Last Indian Cosl Parhil Mahato, Co, Lild (col-corder)	Sitalpur Coal Co.	South Tagra Collecty Silen Bosad, Co , Ltd (as), 24, Healman
	SUNDRIES UNDERGROUND—(21 d cals) 1 R. and B Penno Tanti, (cal) (c) Contenter	UNDERGROUND MACHINERY—(1 d cold) near Call Co. Bladam Bourns, Cod. G h. 43, Lader	Hari Ram Mahato, (10), 30, Francius espaises	Dukbu Faciba, (m.), 37, Loader		Ealo Manjiri, (w.), S.2. Cont-cufter	
i	(Coal	Coal .	Cosl	Coal .	Coal .	Coal	Conl .
	While attempting to climb thore the steep sale of a quarry discussed maried has societied and soil through a distance of a feet. I we assess the steep a third, proved of a feet. I we steep a large marie and injury made.	Becaused was alreging tract a train lise with her lamp because of a consequent and has not been because the state of the s	and of util empty clas which as practify laid use been A could be the analog topy are level generally and how of a having a root when the take any sixty and failify injured decaused made as a conting on the habitat root. In- rection and as party made	On a direct knolings read, dipping at 1 in t, a traumer left an amply this standard but spicefull to appray throughly. The capture is a standard but spicefull is been a based butting than the indicem of the plane. Entraction and computy made.	A set of the earlier test was boug lowered into a readway. A set of at the schools the first four test was and detailed. Brillian the desidence proop which field and struck uses. Let be a set interest down to first way, the con- parest to which he successive a fact way. Let a set a set of the set of the first being a later. Improv- tion and separed made.	While a set of the nelly technerae being lowered down a graduate of i.m. Side Lading foot tech became uncoupled and the technerae who have been an experience of the set and who we waiting these for empty table. Laspection and expensively made.	White a set of three full tolls was being harded up a road by my gat an 4, the roop broke and the this run sman. De- reads was struck and fatally injured by the runsway tolls. Inspection and enquery made
	•			131			

Fatal Accidents during the year 1937-could.

	181	180	179	178			Serial number
		5th Fobruary,	22nd January, 3-15 r.m.	14th January, 5-80 A.M.	7th January, about 6-45 r.m.		Date and hour of accident.
Jealgora P. Ó., Bihar.	Jeakgora F. O., Bihar. Bararoe Mino	Jamadoba Mine,	Bararce (Jealgora Section) Mine, Jealgora F. O., Bihar.	Kustore (Alkusa South Section) Mine, Kusunda P O., Bihar.	Kustore Mine, Kusunda P. O., Bihar.		Namo and situation of mine,
Co., Id.		The Tsta Iron and	The East Indian Coal Co., Ld.	The Rancegungo Coal Association Ld.	Raneegungo Coal Association, Ld.	SUNDRIES UNI	Name of owner.
1. Dunuu sugu, (m.), 35. 2. Rupan Hazam, (m.), 32, Labouers.	(m.), 40, Coat-cutter.	Sautak Bilasonri	Diljan Meah, (m.), 17. Loader.	Khirin Dosadin, (f.), 20, Coal-carrier.	Bam Ial Bhakta, (m), 40. (2) Foudi Kahar, (m.), 35. im.), 35.	SUNDRIES UNDERGROUND—(21 deaths)	Name, sox, age and econpation of persons killed.
Cog.		G.	Coal .	Conl .	Conl .	leaths)	Name of minoral worked.
In a depillaring district of a seam 26 feet thick, props were boing withdrawn, when without warning an area of roof measuring 280 feet × 200 feet collapsed causing an air blast. The deceased who had been engaged in withdrawing timber were proceeding to a "retreat station", when they were killed instantly by the force of the blast. Inspection and enquiry made.	Armie die side of a pillar in a depillaring area was being dressed, a mass of coal weighing about 7 owt., rolled against a prop and dislodged it. Deceased, who was standing not far from the prop, was struck by it and sustained injuries which proved fatal 10} hours later. Inspection and enquiry made.		While drossing was preceeding after blacking in the side of a pillar under extraction, a mass of coal, weighing about 3 tons, fell and dislodged two props which on falling displaced	nade. In a depillaring area deceased was struck and killed instantly by a prop, ly feet long, which was disloged by a large piece of coal that fell from the side of a pillar under extraction. Inspection and enquiry made.	h wore engaged in various lorground loading bunker, what jammed in the cluth. One ond wall of the bunker. One below killing two olly injuring the other three		Canse of accident and remarks.

ti i ti	_					
leases I will a rej. their contible wrist was useleting to lever shown some I was reed about 60 feet from the bottom [a quarry when a piece of atmostell and cut the rope if a field it is be bottom of quarry and such since fatal	Males A	B. P. H. B. This words	" 14M"	7.		
Under the experience of a such receased was decreased down the control of the con	Cont	the la hadra	tillate coditie, crimina Abolia	May May 18		~ ~~~
being despend was healt hanting an empty tilt on an underground transmant frent, that his per cloud till from the rest and struck the fath. In avoiding the failing coal decased trayed over the translate, and struck the head against a value, sustaining fash hydria. Impedion and require the	Cogl	Monn Turt, (m) 48, controller	Fquitable Coal Co.	with Min P. O.	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Whis senting to clear a road through a fail in a gailery modeground a miner was struck by a price of stone modeground a miner was struck by a price of stone during a fail and a fail and failing injured him. Imprection and arquity made	Ç	Mahindi Kora, (m.), 45, Stone-cutter	Lutchipur Coal Co	Intchipur Mina, Starampur P O , Hennal	ork May,	181
Previous to putting up more proports a tunberment and he for a particular ware whome a most of stone, if 2 w 1 w 1. The proportion of the particular ware whome most of stone, if 2 w 1 w 1. The proportion of the proportion of the proportion of the proportion of the proportion of the following the proportion of the following properties of the following properties of the following received facility in the following properties of the proportion of the properties and to up uny mode.	Coal	Dakban Kanti, (m) 2., Looder	The Standard Cosl	Jheria Khaa Muc, Jharia P O , Rihar	3rd May 10 a ar	184
Wi he deceased was dressinged as on peof-cod with a crowbar from a Ludder for the state of the distance of 20 feet. He sastance of recognitions to his head to which he accumbed almost immediately. Impection and enquiry hade		Motabalth Chamar, Coal (st) 25 Controller.	Standard Coal Co.	Benshir Muo, Jharia P O, Bhar	3rd April, 729 r m	183
While descented was assisting to more a ploth in a stope a Large need of on two gains and 20 he related down the Large need of three gains head. He nutstaned injuries about prevent fatter is two hours later, Importon and copury made	Coppor	Copper Havekristo Nath, n, Ld (m) 35, Codic	Indian Copper Corporation, Id	Mosaboni Mine, Ghatsila P O , Bihar	162 11th March. 7-30 a m	162

Facil Ascolints many the year 1987-es de-

	While deceared was wasking to his pump he slighest und see heavily. He died on the specific male or fadine. Inspection and enquiry made.	Coal	Muchirum Bouri, (m), iii, Tump attendant.	Bagdigi Kujama . Colhery Co.	South Kajama Mine, Jhuria P. O., Bihar.	8th November, 5-35 r.m.	191
	While a niner was attaiding on this lief. Into the finite of 21 feet he overlained and fell piller at a height of 21 feet he overlained the for the floor. He was killed instantly. Inspection that onquery made.	Coal	Namyan Bowri, (a.), ::6, Codecatter.	The East Indian Coal Co., Ltd.	Bararre Mino. Jealgora P. O., Bihar.	22nd September, 1-30 a.m.	103
	While showed her standith on a finder driving down some overlanding coal from the course of a tillar standard to the first the secondarship of from his tillar and he first the Plant with the high to the secondarship to the Plant with the high to the secondarship to the Plant with the high to the secondarship to the high content of the hours late to high content in the enquiry mode.	C .1 .	I'nh Boy. (a.) 29, Col-caltt.	Ro. Dutt & Co	Kajora Nine. Kejoragram P. O., Ikugal.	121h Soptomber, Kajora Mine. Kejoragram Er.n. Kejoragram	192
	While at one is a missing an execution of the model of its present full and deviate a self-or and the first and a second of its present self-or a model in a second sould be a before later. I may be the model in a city a mile.	C.	Ado Ramb (f), 45, Stateories	Pandeherra Cellicty Co.	Pandebotra Mine, Jharis P. C., Bihar.	20th Angust, 4 r.v.	191
1.21	Wilder process of the Board of the State of	Ê	Kharalu livara (c.), 5 % Interior	Benezal Coal Co.	Sodepur Nine. Siturationer P. O., Rengal	13th August, Si	190 13
	The state of the s		OUND—(21 de dis)— (c.). b.c. (c.). b.c.	SUNDRIES UNDERGROUND—(21 delh)—cl.) Hurribur Coal Co. Ingon-trops. Ccl.	Katra-Chaitedik Mit.e. I Katra-gark P. O., Ilihar.	Soth July, Le	
	The RE Committee was a second to the second	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Colors of the desired to	Name of carete	Name and eitertion ?	Date and hour No	erial Number.
				I then the court of			

				_		
How asel was run over by a fonded tub on a author tram- line. She swetched acrious injuries and died from as I she and a three days later.	Manya.	II sa . Ur du	the light by the street		-	-
While walking alongsule a moving train of supily wagons decoved was thorsed down by it and metalized injuries which I tores I fakal a few hours laker. Inspection and augusty made.	Coul .	Manka Dussel, fm) 107, t sets.	If it is by the			,
Decrated wer assisting to retrail an empty the when his left range finger was junched between the buffer and tell arren days better, rail He contracted issuance and died arren days better. Imprection and enquiry made.	Coal	legil liauri. (m.) 30, Towners	Ven Per laudih	Physical o		
While altempting to ride on a morning train of take deceased apprehend by river were run over by the which of the take about both became the days later. Impection and enquery made	Coal .	Blini Mebaran, G), 17, Jander	hint Cont Co	Mines Mines		
this walking along a tradition, deceared was certificial and run cere by a tip of one and graphed by two miners, who entained scribes indeed that the was deaf and dimb ly was able graphed by the service of the ball was deaf and dimb languation and anyther made.	Manga-	Mukawa Timava. (f) 27, Labourer	The Shrredpur Mukawa Timara. 'Yndicato Ltd. Laboury	Ni h reduce Mino, Political in F. O .	the Paris was a	=======================================
While wagens were being land-abunted on a railway shime, deceased, attempted to pass between two wagens 10 was considered latera and was fatally injured. Jacopeton and conjury made	deathe)	ON SURFACE RAILWAYS AND TRAMWAYS BELONGING TO THE MINE—(5 deaths) Control Erkend Johan Roum, Cond Co., Ld Loring Cods	ON SURFACE RAILWAYS AND BELONGING TO THE MINE- Control Krivend Johns Nous, Cont Co., 1d Cont Co., 1d Leading Cod.	Contral Kukend Mine, Kumuda F. O. Jihar	leth March.	אַענ
The fly wheel of a some cruster broke while in medion and absence of the wheel struck decement, inflicting (state appares	btone quarry	BY SURFACE MACHINERY—(I death). Narathaa Mulphhal Dhandoo Degdoo. b to tabourer (2a) 23 quadratha death de	BY SURFACE	Orwad Mino Udvada P O . Bombay	24th December, 5 45 P M	192

Fatal Accidents during the year 1937-contd.

205	204	208	202		Serial number.
31st October, 12 Noon.	31et July, 11-50 a.m.	11th November, 3 P.M.	7th November, 7 a.m.		Date and hour of accident.
Sendra Mino, Bane- jora P. O., Bihar.	Jamadoba Mine, Jealgora P. O., Bitar.	Makarwal Mino, Mari Indue P. O., Punjab.	North Damnda Mine, Nndkhurkee P. O., Bilaar,		Name and situation of mine.
Sendra Coal Co., Ltd.	22	Messrs. C. B. Pct- man and R. S. L. Isherdas Kapoor.	Shanker Lall Agar- wala.	ON SURFACE R. BELONGING TO	Namo of owner.
Manna Zolla, (m.), 35, Labourer.	BY ELECTRICITY—(2 deaths). & Steel Dhaneewar Rowt, (m.), 22, Labourer.	Adhrim, (m.), 25, Labourer.	Lotan Mahato, (m), 62, Carter.	ON SURFACE RAILWAYS AND TRAMWAYS BELONGING TO THE MINE—(8 deaths)—contd.	Name, ecx, ago and coenpation of porsons killed.
Coal	Coal .	Coal .	Coal .	AMWAYS	Name of mineral worked.
A fitter with deceased was re-making a joint on the top of upost which carried a eream range. On completion of the work his right arm came in contact with a 223 volt A. C. lighting line which was attached to the post. He received a continuous electric chocks for cometime and then foll IS ft. to the ground. He was unconscious and expired confined for accident would not have happened had the fitter taken the precaution to see that the lighting line was dead before work was commenced. Inspection and enquiry made.	Deceased tonched a portable electric hand-lamp and received a server electric shock from the metallic grand. He walked a few steps and somehow got entangled with the cable serving the lamp. He collapsed and expired after he was realised from the cable. Inspection and inquity made.	A clamp of an aerial ropeway bucket got loose and the bucket ran wild on the ropeway, dipping I in 5. Deceased who happened to be in the bucket was thrown against the bottom terminal of the ropeway and was killed on the spot. Inspection and enquiry made.	Decensed was standing on the front of a tipping tub filled with coal which was being hanled along a surface trantine by a buffalo and a bullock. He fell off the tub in between the raile and was injured. He died from shock 4 hours later. Inspection and enquiry made.		Cause of accident and remarke.

	un la	207	206	
1	State Designation of	lith the omber,		
t I	Authenmint, Ramalla Stone Mina, Q W Iva, II and diller, a though the Problem A thanny.	19th 19th ombor, Kongon and Harlin The Nagira ha a a. Min. Kongnyn P. O., Co., Lit	lat Posember, Hokaro Mine, Bokaro	
}	d. thanny.	The Navira Coal	Last Indian and Bengal Nagpur Railways	MISCELLANEOU
	Ram baran Kol. (m) Stone 18, Stone-breaker	Korom Singh, (m), Coal	Brealim Marari, (f), Coal Est, Coal leader	MISCELLANEOUS ON SURFACE-
	blone .			
	While the can'd was levering down stones from the slope of a hill he contraduced and fell defree down to the doc of the hill. He died almost immediately Impection and english made	Deceased was accidentally struck by a prop which fell a distance of 39 feet from a platform Me was fatally injured Inspection and enquiry made.	Decared attempted to eater a query by an manthorized path and while climbung down a stope of im Lash fold to the bottom and sustannel fatal injuries Impection and enquery made	

APPENDIX II—contd.

Fatal Accidents during the year 1937-contd.

6	. 61	41	ఴ	64	بر		Serial number.	
9th or 10th March.	23rd Fobru- ary, 6-30 F. M.	11th Febru- ary, about 6-7 A. M.	7th February, 9-30 P. M.	31st Janu- ary, 9 A. nr.	3rd January, 12 Noon.		Date and hour of accident.	
Victoria Mino, Kulti P. O., Bengal.	Chambal and Chanuwala Stone Quarries, Sarain-lamgir P. O., Punjah.	Kustoro Míno, Kusunda P.O., Bihar.	Dhansar Mine, Janria P. O., Bihar.	Bhelwa Pahari Mine, Ganwan P.O., Bihar.	Tootulmari Mino, Sijua P. O., Bihar.		Name and situation of mine.	
New Boerbhoom Coal Co., Ltd.	P. W. D. (Punjab), Irrigation Branch	Ranecgnugo Coal Association Ltd.	Dhansar Coal Co., Ltd.	Gauga Saho	Burrakur Ceal Co., Ltd.	FATAL ACCIDENTS NOT INCLUDED IN THE STATISTICS—(24 deaths.)	Nume of owner.	
Runu Bibi, (f.), 30, Not employ- ed.	Ram Saran, (m.), 60, Strdar.	Jugna r a y a u Towary. (n.), about 22, Label Pcon.	Jamru Manjhi, (111.), 42., Not employed.	Prayag Sandi, (m.), 20, Not employed.	Gokul Rajwar, (m), 60, Not Inployed.	NIS NOT INCI	Name, sex. age and occupation of persons killed.	
Coal .	Stone .	Coal .	Conl .	Conl .	Cnal .	UDED I	Name of minoral worked.	
Not om- ployed.	Not a mining accident.	Not u mining accident.	Not em- ployed.	Not em- ployed.	Not a mining accident.	NTHE	Reason for exclusion.	
Deceased was found dead at the bottom of a shaft, 319 feet deep. As the shaft was souredly fenced it was assumed and jumped down the shaft or she had been thrown a fence that the fence the shaft or she had been thrown a fence the shaft or she had been thrown a fence the shaft or she had been thrown a fence the shaft or she had been thrown a fence th	While returning home after the end of his work in a quarry, deceased fell down from a trolley and sustained injuries which proved fatal a short time after the accident. Inspection and enquiry made.	Doceased. who was subject to epileptic fits, was found drowned in an open drain on the surface which contained water to a depth of about 2 feet. Inspection and ouquiry made.	Whilo deceased was orosaing a surface trumling in the darkness he fell over a haulage rope which was in motion and sustained injuries which proved fatal. Inspection and oughing made.	Decensed was found buried in an abandoned prospecting pit, about 8 feet in depth. Inspection and enquiry made.	While grizing couts deceased fell into an abandoned quarry from a height of about 23 feet. Doath was instantaneous. The quarry was fenced properly. Inspection and anquiry made.		Canse of accident and remarks,	

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	Frank Hand	haghuaath (m.), 53	Collination Fullo Manifum Conf. 11 and employed	Atdi On al	Rohary Minch, (m), 40, Zim become	Luchul Luthik (m.) '10, Ast employed	Juyn Blubato (m) 65 Ast employed
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enquity made	Vid. a Deceased was stinding in the line is a collect siling when minuted wiscome were being marghalled by a railway engine. She accident was thought down and killed instantly. Introduce and	Not a Recessed was killed by lightning Inspection and sugalty wordens	be altempting to teas between two wagons during hand- shunting operations on a surface rathery deceased was crushed detroin its buffers and killed unstabily lumpo- tion and current made	Not er. Ih-coand jimped tuju an abauloued quarry custatung about 6 ft of mater and min drowned importion and en jury made	White a belief was long "thorn dwn' a short prece of a set in each leave of the blow daws," the collisions of the blow daws, is the collisions of the blow entirely from the trap does "the precess who were tanning not were reducing to one who were the burnt through the burnt through and one who were the burnt through the burnt through and the burnt through and the burnt through the burnt	Not em- Decembel was drowned in an elandoned quarry, containing 1loyed about 8 ft of water Ins, cotton and enquiry raids	Not one Deceased west to take a bith in a water-logged quarry and loyed was drewned Impertion and inquiry mode
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llycoased was run over by a locumotre on a surface trans-hm. She surfamed schous unjuries and died the following day: becased was found drowned in an abandon'd traighaft, containing 60 feet of water. The shaft was properly fewered furgreenou and injury made

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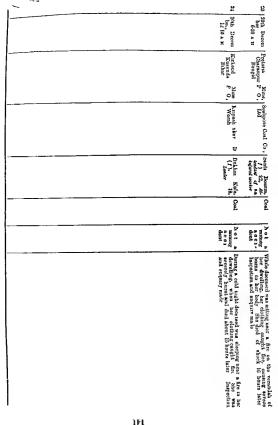
Chand Gope Coal

Not am While doesared was undermining coal in a disused quarry a loyel mass of side 7 × 4 × 2; thick, fe i on him from a length of 5 feet hilling bim unstantly Inspection and enquiry made

APPENDIX II—contd.

Fatal Accidents during the year 1937-contd.

Serial Namber.	Date and hour of accident.	Name and situation of mine.	Name of ewner.	Name, sex, age and occupation of persons killed.	Name of mineral work ad.	Reason for exclusion.	Cause of accident and remarks.
			NI GEGORANDA F6)—SOLISLIVALE IN TALES NOT INCLUDED IN	STATISTICS—(21 deaths)—contd.	UDED IN	THE	
17	6th October, 1-80 A.M.	Jamehari Selected Mines, Baniganj P. O., Bengal.	Jogmehan Kishori- Khudu Manjhi, Coal lal. (m.), 42, Fitter.	Khuẩu Manjhi, (m.), 42, Füter.	<u>.</u>	Not a mining a c c i dont.	Deceased died of heart failure within 15 minutes of his going underground. Inspection and enquiry made.
18	27th October, 6 A.M.	Baruhi Limestone Mine, Banjari P. O., Bilar.	Ram Prashad Mehra.	Ghnria Dosha- dhin, (f.), 28, Not employed.	Limestone Not om- ployed.	Not em- ployed.	Decembed was digging earth from an underout side of au abandoned quarry when the side collapsed. She was etruck by a mass of stone 1' × 1' 9' and died instantly. Inspection and enquiry made.
19	3rd November, 4-30 P.M.	Madhabpur Mine, Ondal P. O., Bengal.	Chandanmull Indra- kumar.	Kaloo, (m.), 22, Coal-cutter.	Coal .	Not a mining accident.	During a fit of insanity deceased throw himself down a shaft 199 ft. deep and was killed instantly. Inspection and onquiry made.
20	13tb Novem- ber, 12-80 P.M.	Lakurka Mino, Katrasgarh P.O., Bihar.	Lakurka Coal Co., Ltd.	Dukhni Kole, (f.), 25, Not employed.	Coal	Not em- Ployed,	Deceased went to a boiler feed tank containing about 10 feet of vator, for visiting purposes and was drowned. Inspection and enquiry made.
21	25th November, 4-0 4.M.	Kurhurbaree Mine, Giridh P. O., Bihar.	The Government of India.	Tetroo Rai, (m.), 12, Not employed.	Coal .	Not om- ployed.	While a boy was warming himself near a heap of boiler ashes his clothing caught fire. He succumbed to his burns 16 days later. Inspection and enquiry made.
. 22	29th Nevem- ber, 11-45 г.м.	Bhulan barar e o Mino, Pathardi h i P. O., Bihar.	Bhulan harare e Ceal Co., Ltd.	Situ Bouri, (m.), 85, Coat- cutter.	Ceal .	Not a mining a coi. deat.	Deceased was sitting near a fire in the compound of his dwelling, when his clothing caught fire. He sustaines serious burns to which he succumbed the following day. Inspection and enquiry made.



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Statement of fatal and serious accidents in and about Mines

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Statement of fatal and serious accidents in and about Mines

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Number of persons seriously injured

DIX II—contd.

ACCIDENTS

No. 2—contd.

Death rate per 1,000 persons employed

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regulated by the Indian Mines Act, during the year 1937—contd

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DIX II—contd

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regulated by the Indian Mines Act, during the year 1987-concid.

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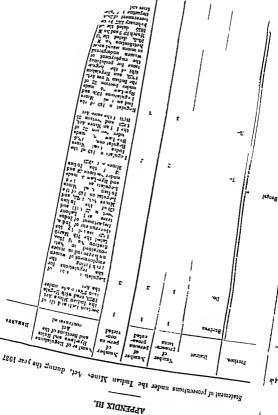
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APPENDIX II—concid.

Table No. 3.

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APPENDIX III—conid.

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Miscellaneous.

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Certificates granted to holders of British certificates

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APPENDIX IV—cond.

Miscellaneous—contd.

Statement No. 2-contd.

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1937—contd.

Certificates granted to holders of British certificates of competency—contd.

(a) First class-contd.

.7591 Transde date	F163	Dieto .	868	Engineer, Behram Hormasico
25th January 1929.	ISER	oitto .	168	Taylor, Mathew
13th February 1931.	2257	Ditto .	330	Willis, William Stanley
26th January 1984.	2927	Dieto .	389	Griffith, Kenneth
25th January 1929,	9888	Teel Todmovow didl	388	Wright, William John
14th February 1936,	6682	. TEEL ling& delL	2 98	Anderson, Donald
8th Pedruary 1985.	##8Z	Dieto	988	Lomax, James · · ·
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INDIAN CERTIFICATES.

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	21st April 1937.	582				• Manamand, Dhana
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APPENDIX IV—conid.

Miscellaneous-contd.

Statement No. 2-contd.

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1937—contd.

Certificates granted to holders of British certificates of competency—contd.

(u) First class—contil.

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INDIVA CERTIFICATES.

(a) FIRST CLASS.

	Ditto.	261	Ī·	•	•	Mitra, Durga Prasanna
	Ditto.	093	-	•	•	Gupts, Pramod Chandra
1	Ditto.	520	1.	•	•	Datta, Anilendra Math
	Difto.	258	-		•	Yasin, Mohammad
	Ditto.	292	-		•	Roy, Pratul Enmar
	Ditto.	226	-	•		MoCae, Neil Bertram .
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VEPENDIX IV-cond

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VPPENDIX IV—contd.

${\it Miscellaneous-contd.}$

Statement No. 4-contd.

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APPENDIX IV--cond.

Miscellaneous-contd

Statement No. 4-ontid.

IV -- Under the head " (Burma) "

. Leneblena Mrabesmal." (1) For the sub head "Lumestone bline ' the following and bead shall be substituted, namely --

(u) to the entries under the said and bead the following entry shall be added, namely —

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- Tleman, babbe ad In In the entires and or the head " (Central Provinces) the following and head and onlines shall

" Baurda Minnes",

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(t) Ander the sub bead " Stone Mines " for entries 16 and 17 the following entires shall be VI -Under the head " (Madres Presidency) ..

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(a) Under the sub pead " Berytes Mines" -

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APPENDIX IV-contd.

Miscellaneous—contd.

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(ii) to the entry under the said sub-head the following entries shall be added, namely :-													
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(i) For the sub-liend " Stone Mines " the following sub-head shall be substituted, namely :-													
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Statement No. S.

COTIFICATION

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Temporary Regulations for Coal blunca

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Miscellaneous-contd.

Statement No. 6.

NOTIFICATION.

New Delhi, the 1st February 1937.

No. M.-1055.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Governor General in Council is pleased to make the following regulations, which have been previously published as required by sub-section (1) of section 31 of the said Act, namely:—

Regulations for prohibiting the employment of women underground in mines.

l. On or after the 1st day of July 1937, no woman shall be permitted to enter for purposes of employment, or de employed in, the underground workings of any mine.

Explanation.—" Underground workings" means any part of a mine situated beneath the superjacent ground, and includes vertical shafts provided for access to, or for the ventilation of such part; but does not include tunnels made and used only for convenience in disposing of spoil.

- 2. Regulation I shall not apply to women employed in health and welfare services.
- 3. No woman shall be permitted to enter or remain in the maderground workings of any mine unless she is in possession of a pass granted by the manager of the mine.
- 4. Before a woman enters a mine with a pass granted under regulation 3, her name, address and occupation shall be entered in a register maintained for this purpose at the surface of the mine, and her exist from the mine shall also be recorded in that register.
- Provided that in any mine to which sub-section (4) of section 28 of the Indian Mines sket, 1923 (IV of 1923), has been declared to be applicable, the entries required by this regulation may be made in the register prescribed by that sub-section.

Statement No. 7.

NOTIFICATION.

New Delhi, the Loth February 1937.

- No. M.-1055.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Alines Act, 1923 (IV of 1923), the Governor General in Council is pleased to direct that the following further amendments shall be made in the Schedule to the notification of the Government of India in the Department of Industries and Labour, No. M.-1051, dated the 1st October 1935, namely:
- In the said Schedule—
 I. In column 3 against entry I, after condition (2) the following condition shall be inserted,
- inmedy:—
 "(3) The owner, agent or manager of any mine so exempted shall not permit any female to enter for purposes of employment, or be employed in the underground workings, if any, of the mine."
- U. In column 3 against entries 4 and 9 the following condition shall be inserted, namely:—
 "The owner, agent or manager of any mine so exempted shall not permit any temple to enter
 tor purposes of employment, or be employed in the underground workings, if any, of the
 application."

VPPENDIX 1V—contd.

Miscellancous-contd.

Statement No. S.

The 13th March 1937.

nation Mines Act, 1924 (IV of 1923), the Corterment of Bihar are pleased to make the following No. 453-VIIM-7/37-Com. In exercise of the powers conferred by chause (a) of section 30 of the

A - Amang Board for Coal Mines

Of the two members to be normasted under section 16(1)(4) —

- (a) One shall be neminated by the Indian Minnes Association, and
- (b) One shall be nominated as the result, of an election held by an electoral college consisting
- erson O visited asther of the Indian Bining I deration and the Indian Colliery Owners
- nails orout 9 rad field spillon famincts of the clocked and legs shall have a more than
- ator mio
- 20unam yar nellot ans manner 2 , The members alsalt de nominated under section 19(1)(c), to represent this interes of minera,
- trade unions shall nominate two persons to represent the interest of miners not less than one quarter of the miners employed in the province, the said registered (a) If the regutered trade unions in the province of Bishat have in the aggregate as members
- (b) If the reguestered trade unions, on the provinces of Johas hars in the urgregate as a members is the set after one questrers of the runner are open even to the reguestered trade unions abell members on person to represent the multivest of the modification of the province of the reguestered trade unions abell members one person to represent the unions.
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- bers, the local Government shall nominate both persons
- (d) If the reguleted track unions are unable to ogno each other preson or present of the formatical under pair (d) or (b) are the construction of corresponding to the collocation of the rect.

 Acado, call on one registered trade union to mominate a person in the following
- sepso
- (1) The Indian Colliery Labour Union,
- (2) The Lata's Colliery Labout Association,
- sand the totation and its new recd for all anisequent vacances (3) The Indian Miners' Association,
- out to borred a rot sould blad (s)(1)(1) of (b)(1) of mother are branchon morrey &

years from the date of the nothinging appearing him to be a member of the Board

- As soon as may be on the occurrence of a vacancy or before it, if powible the Chantman who is unable or unwilling to serve an the Board The Chairman of the Board shall be authorised to accept the reagnation of any member
- cligible for renomination. shall inform the local Covernment, so that the racancy may be filled Arctiring membes shall be

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- (1) Before a member of the Board leaves India, Topic liout fugit
- beta esbal of mules (a) he shall intimate to the Chauman the date of his departure and the date of his expected
- (b) if he intends to be absent from India for a longer period than an months lu shall tender

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he shall be deemed to have resigned, with effect from the date of his depit time firm ludia (ii) It say member leaves India without takeng either of the course mentioned in sub tule (i) he resignation to the Chairman

Miscellaneous-contd.

Statement No. 6.

NOTIFICATION.

New Delhi, the 1st Pebruary 1937.

No. M.-1055.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Governor General in Conneil is pleased to make the following regulations, which have been proviously published as required by sub-section (1) of section 31 of the said Act, namely improved the continual proviously published as required by sub-section (1) of section 31 of the said Act, namely in

Regulations for prohibiting the employment of women underground in mines.

1. On or after the 1st day of duly 1937, no noman shall be permitted to enter for purposes of employment, or be employed in, the underground workings of any mine.

Explanation,—" Underground workings" means any part of a mine situated beneath the superfacent ground, and includes vertical shafts provided for access to, or for the ventilation of such part; but does not include tunnels made and used only for convenience in disposing of spoil.

- 2. Regulation I shall not apply to women employed in health and welfare services.
- 3. Zo woman shall be permitted to enter or remain in the underground workings of any mme unless she is in possession of a pass granted by the manager of the mine.
- 4. Before a woman enters a mine with a pass granted under regulation 3, her name, address and occupation shall be entered in a register maintained for this purpose at the surface of the mine, and her exit from the mine shall also be recorded in that register.

Provided that in any mine to which sub-section (4) of section 28 of the Indian Mines Act, 1923 (IV of 1923), has been declared to be applicable, the entries required by this regulation may be made in the register prescribed by that sub-section.

Statement No. 7.

NOTIFICATION.

New Delhi, the 25th February 1937.

No. M.-1055.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Mines Act, 1923 (IV of 1923), the Governor General in Council is pleased to direct that the following further amendments shall be made in the Seltednie to the notification of the Government of India in the Department of Industries and Labour, No. M.-1051, dated the 1st October 1935, namely:—

In the said Schedule-I, after condition (2) the following condition shall be inserted,

mamely:—
"(3) The owner, agent or manager of any mine so exempted shall not perpenses of employment, or be employed in the uncitable in the number of the mine."

II. In column 3 against entries 4 and 9 the folloning condition shall be in "The owner, agent or manager of any mine so exempted shall not 1 to for purposes of employment, or be employed in the undergrot

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Miscellancous-contd.

Statement No. S.

The Lish March 1937.

d -Mining Board for Cool Mines --- aulun Industry Mines Act, 1923 (IV of 1923), the Government of Bihar are pleased to make the following No. 453-VIIM-7/37-Com. In exercise of the powers contented by clause (u) of section 30 of the

Of the true members to be nominated under section 10(1)(4) -

- (a) One shall be memorated by the Indian Minnes Assectation, and
- (4) One shall be nommated as the sesult of an election held by an electoral college consisting
- Luo mambers shall be meminated under section 10(1)(e), to represent the interest of minus, 210 \ 2U0 eroand Time Collects of the Indian Minney Federation and the Indian Collecty Owner defending and Leading and the close of
- not less lban one quarter of the miners employed in the province, the said reguetered (a) If the regalered trade unions is the proting of Biliat has an statement - Tonnam Lat wollot oilt un
- (b) If the requirered trade minors are the province of Bahar have in the aggregate as members less than one quarter of the mines than the state of the mines are compensate to the said the institute and the institute of the mines are compensate to the said the institute of Overnament shall momente the institute of the contract of the ersons to transtat off transment of smooth of the unformated and execute obsert
- bers, the local Government shall neminate both persons min 000, I tail and stagesting the province has out at the argertent benefit and their limit in the
- nomicated veder part (a) or (b) of this rule, the local Government shall for each vacaccy, call on one registered trade union to nomicate a person in the following od llands amoung to dusting tands of an orige of oldangs are amount about bestetiger out if (b)
- -- 12D10
- (1) The Indian Colliery Labour Union,
- (2) The Tata's Colliery Labour Association,
- A person nominated under section 19 (1)(d) or 10(1)(e) shall hold office for a period of two and thus rotation shall be observed for all subsequent vacamones (3) The lodien Musers' Association,
- As soon as may be on the occumente of a vacancy or before it, if possible the Chamman who is unable or unsulling to serie on the Board The Chairman of the Board shall be authorized to accept the resignation of any member years from the date of the notherston appearing him to be a member of the Board
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he shall be deemed to last sergned, with effect from the date of his departure from ludia

- return to India, and (a) he shall not made to the Chauman the date of his departure and the date of his expected
- (11) Il any member leaves ludia uethout taling either of the counce mentioned meub tule (1) has resignation to the Chairman (4) if he mixeds to be absent from India for a longer period that an months he shall tender

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Miscellaneous-contd.

Statement No. 8-could.

the proceedings of each meeting in a minute book, kept for permanent record. The record shall be 8. The Scerctary shall conduct all the correspondence of Board, keep its accounts and record signed by the Chairman, 7. The Board shall meet at such places and at such times as may be appointed by the Chairman.

for each meeting, and shall furnish each with the agenda of the business to be discussed. The Scerciary shall give due notice to the members of the Mining Board of the date fixed

(a) the Chairman; 10. A quorum of the Board shall consist of-

(b) the Chief Inspector or an Inspector of Mines appointed under section 10(1)(b);

(c) one person nominated under scetion 10(1)(d);

(d) one person nominated under section 10(1)(e).

12. The Chairman of the Board shall have a deliberative vote, and shall also in the case of an cqual division have a easting vote. 11. All questions or matters referred to the Board shall be decided by a majority of the votes of the members present.

13. Any member disagreeing with a decision of the Board may enter a note of dissent which shall form part of the record of the proceedings.

16. It shall be open to the parties to any reference before the Board to appear at the hearing either in person or by solicitor or counsel or agent. 14. The Board shall have the power of consulting with such person or persons as they may in their discretion desire to consult.

Unless otherwise directed by the Chairman the proceedings of the Board shall be held in private.

B .- Nining Board for Alines other than Coal Mines.

(a) One shall be nominated by the Indian Mining Association, and 1. Of the two members to be neminated under section 10(1)(d):-

of the members of the Indian Mining Pederation and the Indian Colliery Owners' Association. At such election no member of the electoral college shall have more than Mistaine egollos larotesola na yd bled noitesola na ot staet at the sandre on (d) of the mother of the materials and the materials of the materials.

2. Two members shall be nominated under scetion 10(1)(c), to represent the interest of miners, -: ronnam gniwollol odd ni

not less than one quarter of the miners employed in the province, the said registered trade unions shall acminate two persons to represent the interest of miners. (a) If the registered trade minime of the province of Bihar have in the aggregate as members

the minors and the local Coverrment shall neminate the other person. out main see and the consistence one person to represent the interest of less than one quarter of the miners employed in the province, but not less than 1,000 (d) If the registered trade unions in the province of Bihar have in the aggregate as members

(c) If the registered trade unions in the province have in the aggregate less than 1,000 members the local Covernment shall mominate both persons.

to him a vaccine, and shall inform the trade unions sometimes of trade unions sometimes of person or persons shall call on each registered trade union in turn to neminate a person to fill a vacancy, and the local Government shall decide the order in which such trade to fill a vacancy, and the local government shall decide the order in which such trade to fill a vacancy, and the local government shall inform the trade unions operated at (d) If there are two or more registered trade unions, and they are unable to agree as to what persons shall be nominated by them under part (a) or (h) of this rule, the formal fraction or persons shall call on each registered trade union in turn to neminate a part.

Miscellancous-contd.

Statement No 8-concid

- years from the date of the notification appointing in it seems and the step of the Board owt to borned a tol solito blod lisds (s)(1)01 so (b)(1)01 mostoes tabau batanimon norseq A.
- shall inform the local Government, an that the vacancy may be filled A retiring member shall be As soon as may be on the occurrence of a vacancy or belons it, if possible, the Chairman who is unable of unwilling to serve on the Board The Chauman of the Board shall be authorised to accept the resignation of any member
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eligible for renomination

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- (ii) If any mumber leaves linds without taking exther of the courses mentioned in sub rule (i), nemued.) edd or multerigiest bill (c) If he intends to be absent from India for a longer persed than six months, he stall ten ter
- Utaniata) A The Board shall meet at such places and at such times as may be appointed by the to shall be deemed to have resigned with effect from the date of his departure from India
- spell be signed by the Charmais and the proceedings of each meeting in a minute book, kept for 1 ermancut record. The record The bestetary shall conduct all the currespondence of the Board Leep ats accounts and
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- (b) the Chief Inspector or an inspector of Ames appointed under section 10(1)(b) (a) the Chauman,
- (c) one person nominated under section 10(1)(d).
- II All questions or matters referred to the floard shall be decided by a majority of the voice (a)(1)(1) montana tahan batanimon nostaq ano (b)
- edual division liave a casting vote The Charman of the Board shall have a deliberative vote and shall also in the case of an of the members present
- shall form part of the proceedings Any member disagreeing with a decision of the Board may enter a note of dis ent which
- their discretion desireto consult. If The Board shall have the power of consulting with such person or persons as they may in
- It spail be open to the parties to any reference belone the Board to appear at the freshift
- Unless otherwase directed by she Chamman, the proceedings of the Board shall be held in 91 erther in person or by solicitor or counsel or sheat

Miscellaneous-contd.

Statement No 8-concid

- 3 A person nominated under section 10(1)(d) or 10(1)(e) shall hold office for a period of two years from the date of the notification, appointing him to be a member of the Board.
- 4 The Chairman of the Board shall be authorised to accept the resignation of any member who is niishle or unwilling to zerve on the Board
- 5 As soon as may be on the occurrence of a vacancy or before it, if possible, the Chairman shall inform the local Government, so that the vacancy may be filled. A retiring member shall be eligible for renomination.
 - 6 Absence from India -
 - (i) Before a member of the Board leaves India-
 - (a) he shall intimate to the Chairman the date of his departure and the date of his expected return to India, and
 - (b) If he intends to be absent from Index for a longer person than any months, he shall tender his resumation to the Chairman
- (ii) If any member leaves India without taking either of the courses mentioned in sub rule (i), he shall be deemed to have resented with effect from the date of his departure from India,
- 7 The Board shall meet at such places and at such times as may be appointed by the Chairman
- 8 The Secretary shall conduct all the correspondence of the Board, keep its accounts and record the proceedings of each meeting in a minuto book kept for permanent record. The record shall be signed by the Charman
- 9 The Secretary shall give due notice to the members of the Mining Board of the date fixed for each meeting, and shall furnish each with the agenda of the business to be discussed
 - 10 A quorum of the Board shall consist of—
 - (a) the Chairman .
 - (b) the Chief Inspector or an Inspector of Mines appointed under section 10(1)(b),
 - (c) one person nominated under section 19(1)(d).
 - (d) one person nominated under section 10(1)(e)
- 11 All questions or matters referred to the Board shall be decided by a majority of the votes of the members present
- 12 The Chairman of the Board shall have a deliberative vote and shall also in the case of an equal division have a casting vote
- 13 Any member disagreeing with a decision of the Board may enter a note of discent which shall form part of the proceedings
- 14 The Board shall have the power of consulting with such person or persons as they may in their discretion desireto consult
- 15 It shall be open to the parties to any reference before the Board to appear at the hearing either in person or by solicitor or counsel or agent
- 16 Unless otherwise directed by the Chairman, the proceedings of the Board shall be held in private

Miscellaneous—contd.

Statement No. 9.

NOTIFICATION.

Simla, the 17th June 1937.

No. M.-1055.—In exercise of the powers conferred by section 46 of the Indian Mines Act, 1923 (IV of 1923), the Central Government are pleased to exempt for a period of three months from 1st July 1937 all coal mines in Bengal, Bihar, the Central Provinces and Orissa from the Provisions of clause (j) of section 29 of the said Act, to the extent to which regulations made thereunder prohibit the entry of women into underground workings for purposes of employment. This exemption is subject to the condition that the total number of women employed in the undergound workings of any mine on any day shall not exceed 5 per cent. of the total number of persons so employed.

Statement No. 10.

NOTIFICATION.

Simla, the 10th July 1937.

No. M.-966.—In exercise of the powers conferred by sections 29 and 31A of the Indian Mines Act, 1923 (IV of 1923), the Central Government is pleased to make the following further temporary regulations, being satisfied that for the prevention of apprehended danger or the speedy remedy of conditions likely to cause danger it is necessary in making these regulations to dispense with the delay that would result from their previous publication and reference to Mining Boards:—

Temporary Regulations for Coal Mines.

- 1. (1) These regulations may be called the Supplementary Coal Mines (Temporary) Regulations,~1937.
 - (2) They shall apply only in respect of coal mines.
- 2. In these regulations, "the principal Regulations" mean the Indian Coal Mines Regulation, 1926.
- 3. (1) The Chief Inspector may require the manager of any mine in which, or in any part of which, a mechanical ventilator is in use, to submit within one month Standing Orders specifying the action that shall be taken with respect to the withdrawal of workmen from such mine or such part of the mine in the ovent of a stoppage of the mechanical ventilator.

(2) The Chief Inspector may approve of such Standing Orders or may modify them if, in his opinion, they are defective in any respect, and shall give notice in writing to the manager that such Standing Orders as are approved by him shall be entered at the mine.

- (3) On receipt of the notice from the Chief Inspector the manager shall post the Standing Orders in conspicuous places at the mine both above and below ground and shall be responsible for securing effective compliance with them.
- 4. (1) In any mine in which inflammable gas has been found during the provious twelve months, all unused workings in which inflammable gas may accumulate and which are not permanently scaled off, shall, at least once in every week, be inspected for the presence of inflammable gas, by the competent person appointed under regulation 70 of the principal Regulations.
- (2) The inspection shall be made with a locked flame safety lamp of a type approved by the Chief Inspector, and no additional light shall be used, other than an electric torch or lamp of a type approved by the Chief Inspector.
- (3) The result of every such inspection shall be reported by the person making it in the manner required by sub-regulation (5) of regulation 70 of the principal Regulations and shall be recorded in the book maintained in accordance with sub-regulation (2) of that regulation.
- (4) Nothing in this regulation shall be construed to affect the provisions of regulation 70 of the principal Regulations.

APPENDIX IV-contal

Miscellaneous-contd.

Statement No. 10-coxtd

(2) The person conducting the starch shall +

(a) search or turn out all pockets,

Regulations under the fed as 31 . . 4

- (b) pass his hand over all clothing, an I
- (c) examino any article in the norhinan's po-secuon
- Possession

/1 35

- of the said manager for every well.
- (3) If any lamp is found to be defective, it shall not be received for use until the defect has been remedied
- 7 (1) A competent person appointed in writing by the manager for the purpose shall examine every safety lamp on its being returned, after use underground.
- (2) If on such examination any lamp is found to be damaged or invused he shall record the nature of the damage or misuse in a book to be kept at the same for the purpose, and every new entry in the book shall be shown to the manager without delay.
- 8 The principal Regulations shall be read as if for clause (b) of regulation 127 the following clause were substituted, namely --
 - (b) (i) A competent person appointed in writing 1y the stanager for the purps o shall era mine every safety lamp at the sariese immediately before it is taken underground for two and shall source himself, as far as practicable, from external observation that each lamp is in safe working order and securely locked.
 - (a) The competent person referred to in sub-clause (i) shall not be the banksman except in a mine where the number of persons employed underground is not more than 50 at any one time.

Statement No. 11.

PRESS COMMUNIQUE

Simla, the 10th September 1937.

e intended to come into effect f coal mines in Bengal Bihar, ded to grant no further exten e list of Outober

Miscellancous—contd.

Statement No. 12.

NOTIFICATION.

Nagpur, the 25th January 1937.

No. 221-3314-XIII of 33.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), as subsequently amended, the Governor in Council is pleased to make the following amendments to the Central Provinces Begulation and Inspection of Mines Rules, 1924, published under the Central Provinces Gazette No the stion No. 2226-1820-XIII, dated the 24th September 1924 (as subsequently amended):—

Amendments.

- 1. For rule 3, the following rule shall be substituted, namely :--
- "3. The persons nominated under section 10(1)(c), section 10(1)(c) (ii) and section 10(1)(c) (iii) shall be such persons as the Local Government may select.
 - 2. For rule 5 the following rule shall be substituted, namely:--
- "3. A person nominated under section 10 (1) (c), section 10 (1) (d) or section 10 (1) (e) shall hold office for a term of three years from the date of the notification appointing him as a member of the Board:

Provided that an outgoing member shall continue in office until the appointment of his successors is notified; and

Provided further that the Local Government may, by notification, at any time terminate the term of office of a person nominated by it as a m mber of the Board under the provisions of section 10 (1) (c) in order to replace him by a person nominated by a trade union or trade unions in the prescribed manner under the said provisions."

- 3. In the heading of Chapter II, for the words "Court of Inquiry", the words "Accidents and Court of Inquiry", and for the word, figures and letter "section 30 (b)", the words, figures and letters "section 30 (aa) and (b)" shall be substituted.
- 4. In Chapter II, the following rule shall be inserted as rule 19, and present rules 19 and 19-A shall be renumbered as rules 19-A and 19-B, respectively: -
- "19. If the Local Government has, by notification, directed that accidents of the kind referred to in section 20 (2) occurring in or about any mines shall be entered in a register, the same shall be entered in a register to be maintained in Form G called the Register of Minor Accidents:

Provided that this rule shall not apply to accidents involving any injury which does not result in the enforced absence from work of the person injured for a period exceeding seven days."

- 5. In the heading under Chapter V for the words, figures and letters "section 30 (cc), (d), (f) and (k)" the words, figures and letters "section 30 (cc), (d), (e), (ee), (f) and (k)" shall be substituted.
 - 6. For rule 29, the following revised rule shall be substituted, namely :-
- "29. The register of all persons employed in the mine prescribed by section 28 (1) shall be maintained in Form A-1 at the office of the mine. It shall show all changes, excluding merely temporary or casual changes, in the nature of employment of each person."

Miscellaneous-could.

Statement No. 12-month

NOTIFICATION-contd.

Nagour, the 25th January 1937-contd

- 7. After rule 29 B, the following new rule shall be inserted, namely -
- "23-G For every mine to which the provisions of section 23 (4) are applied by the Local Contentiant by general or special order, there shall be kept at the office of the mine a register in Form A 2 of persons working below ground in the man.
 - 8 After rule 31, the following rule shall be meeted namely
- "31 A Before any person who has not completed his aventerally year is employed under ground, the manager shall strange to have been examined by a questioned medical prastitioner and if after examination the medical practitions is of upstion that such presents in to supply meniunderground, he shall grant him a cretification in form III.
- 31 B (1) Every certificate granted by a qualified medical practitioner shall be prepared by sling up the foil and counterful on both of which shall be impressed the left thumb mark of the person in whose name the certificate is granted
- (2) The qualified medical practitioner shall when satisfied as to the correctness of the entries made theren, sign the foil and initial the counterfoil and shall deliver the foil to the manager for sefecustody.
- (2) No certificate granted under rule 31 4 shall be valid for a period exceeding twelve months. Error person in respect of whom a certificate of fixers between shall be re-assumed within twelve months of the last persons examination unless in the mean time he has completed his eventionally sets and the qualified medical practitioner making on it is assumation may know the certificate for a further period in exceeding twelve months on my suspend or reviols the said.
- (4) A qualified medical practitioner who refuses to grant a certificato referred to in rulo 3) A or
- (5) Every person who has been certified as fit for employment underground shall before he is so employed be provided by the manager with a metal tolen. Such token shall be stamped with the letter "P" and numbered. The number shall be the same as that of the certificate of thread.
- (6) A record of every token so sensed and the person to whom it was assued shall be maintained in the office of the mine
- (7) Certificates presented by clause (a) of section 26 A may be granted by a mine medical officer who is declared to be a qualified medical practitioner?
- 9 For the existing forms "A 1, A 2, E and I the accompanying revised forms "A 1, A 2, E and F" shall be substituted
 - 10 After form "F" the accompanying forms "G and H" shall be inserted

Statement No. 12—cività.	
(Rolls 29.) (A) of the Ir form May, let, 1923, at using ded.)	proof age age age age
e enface and underground). (Sections 25 (1) a m is vision	
Register of work-persons employed in mines (com or	80
Name of mindo if any, to a high The day of north the interfed. Of rest	The day 5 of rest
Nature Nature	to which he is
End- Beam a.m., a.m. p.m. p.m. p.m.	(10)
	a and a second species
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APPENDIX IV-contid.

Miscellaneous - contil.

Miscellaneous -- contd.

Statement No. 12-cont?

FORM A 2

mar 20C)

I given of persons rearring below grown i in reope i of all cost source and other pines having underground waitings, to which processions of section 25 (1) of the Intian Wines Act have been under applicable by a ownell or special other of the Lord Correspond

(Persons entering the mine shall be shown by a win the column marked "In against the name.)

(Persons learning the mine shall be shown by a marked the name shall be shown by a marked the name.)

(All entires which be made in the shown by a marked the name.)

Period of work commences at

p ni fa m

Period of work ends at

pm am

For week commencing

and ending

101	Accr C	om men	eing				and cu	ding							
Serial Vo of	Sur	idas	Mos	nday.	Tue	uls\	Wedi	ire lag	Thursday I		Ft	nlas	Saturda		
form A I	In	Out	In	Out	In	Ont	In	Out	In	Out	In	Out	In	Out	
													(}		
		b											1	1	

Total number of persons underground-

Total number of women underground-

Percentage of persons below ground who are women-

A	DD	TN	DIV	TT/	contil.
"	rr	CIL	UIA.	I Y	~O(7711146 .

Miscellaneous-contd.

Statement No. 12-contd.

FORM IL.

(Rule 29-I) for mines with no nelay system.,

Notice of commencement of work, commencement of rest interval, and of rest as required by section 23-B (1) of the Indian Mines Act.	interval	and end of work
Name of mine		_

Name of owner of mine.....

It is hereby notified that persons employed in this mine shall begin their work, take rest intervals and end their work at the hours set out below -

Kind of worker.	Beginning of work,	Commencement of rest interval.	End of rest interval.	End of work

APPENDIX IV. could Miscellancous-confd

Statement No. 12-ront!

PORM I.

hims of commencement of work, con parameter of east saterial, and of real saterial and end of unit. (RULH 20 H FOR MINES WORKED BY A SYNTY OF BYLLYS)

menter the enterested the state of the set of the set between the and and their others of mark themselves Name of owner of mine -

The state of the last of the l

Vame of miles

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	¥ 1	3,2	2,2	3/2	2 ¹ 2	3,2	;; <u>;</u>	: ::	::`	::	i
	 	7 3	2.5	2:	? :	2 2	2 :	3.7	? :	? ?	::
		-	e	*	2 ,	•	::	2 3	1:	2 3	3 1

11 11. 11. 11.

Miscellaneous-contd.

Statement No. 12-cortd

FORM G.

Regerer of x are no about x x cool varies only. (Sections, 20 (2) and 30 (any of the Indian Mines Act or Vivil 19 of the Central Proceeds Rejubition and Inspection of Mines Rules, 1921, as amended.)

Name of mere -

Duration of Distriof Nature Signature Bate of Name of the Nature Nature enforced person inof the of of of 11.0 nbunce work. jund. accident. injury. a cident. Manager. entry. from work. :: ı Ğ 6 7 5

Note.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

Miscellaneous-contd

Statement No. 12-c well

I ORM II

[Role of filess to work

Scral \0.	Genal No
2 Date————	Date
3 \suc	I leads certify that I have per orally
	esammed (name)
4 Father a name	-
3 Sex and caste or religion	daughter of
8 læsidence	caste
7 Age	pen leet of
8 Physical fitness	
	who is destrous of he no er ployed in a trin-
9 Distinction of marks	and that $\frac{h_{12}}{h_{22}}$ age as nearly as can be aset
10 1 casons for-	tamed from my examination is
(2) Refusal of certifica c	years and that he is fifteerplenment in a
(b) Cetificate being revoked.	Euge His description Early 200
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	let land them berremen.
Init al of the qualified mad all practitioner	
	progress a sent new research of

e granteur

hore -Exact details of carne of pleased and ability about the clearly stated.

Miscellaneous-contd.

Statement No. 13.

NOTIFICATION.

Nagpur, the 25th January 1937.

No. 228-3314-XIII of 36.— In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), as applied to Berar, as subsequently amended, the Governor in Council is pleased to make the following amendments to the Berar Regulation and Inspection of Mines Rules, 1924, published with the Central Provinces Gazette Notification No. 2227-1820-XIII, dated the 24th September 1924 (as subsequently amonded):—

Amendments.

- 1. In the headings of Chapter I, for the words "Court of Inquiry", the words "Accidents and Court of Inquiry", and for the word, figures and letter "section 30(b)", the words, figures and letters "section 30(aa) and (b)" shall be substituted.
- 2. In Chapter I the following rule shall be inserted as rule 1, and present rules 1 and 1-A shall be renumbered as rules 1-A and 1-B, respectively:—
- "1. If the Local Government has, by notification, directed that accidents of the kind referred to in section 20(2) occurring in or about any mines shall be entered in a register, the same shall be entered in a register to be maintained in Form G called the Register of Minor Accidents:

Provided that this rule shall not apply to accidents involving any injury which does not result in the enforced absence from work of the person injured for a period exceeding seven days".

- 3. In the heading under Chapter IV for the words, figures and letters "section 30(cc), (d), (f) and (k)" the words, figures and letters "section 30(cc), (d), (e), (e), (f) and (k)" shall be substituted.
 - 4. For rule 11, the following rovised rule shall be substituted, namely :-
- "11. The register of all person employed in the mine prescribed by section 28(1) shall be maintained in Form A-1 at the office of the mine. It shall show all changes, excluding merely temporary or casual changes, in the nature of employment of each person".
 - 5. After rule 11-B, the following new rule shall be inserted, namely :--
- "II-C. For every mine to which the provisions of section 28(4) are applied by the Local Government by general or special order, there shall be kept at the office of the mine a register in Form A-2 of persons working below ground in the mine".
 - 6. After rule 13, the following rules shall be inserted, namely:-
- "13-A. Certificates prescribed by section 26-A of the Act shall be gianted in Form H. The forms shall be kept in a bound book in foil and counterfoil and numbered consecutively.
- 13-B. Before any person who has not completed his seventeenth year is employed underground, the manager shall arrange to have him examined by a qualified medical practitioner and, if after examination the medical practitioner is of opinion that such person is fit for employment underground, he shall grant him a certificate in the Form in Schedule D.
- 13-C. (1) Every certificate granted by a qualified medical practitioner shall be prepared by filling up the foil and counterfoil on both of which shall be impressed the left thumb-mark of the person in whose name the certificate is granted.

Miscellaneous-contd

Statement No 13-coald.

NOTIFICATION-contd

Nugger, the 2 sth Jr ary 1937-co td

- (?) The qual fled med cal pract t oner shall when a t sfel as to the correctness of the entires mediate therein a gn the fol and in t at the counterfol and shall defive the foil to the manager fol safe custody.
- (3) No cert l'exto grantel un her rule 13 I shull be rul I for a per od exceeding twelve months. Errety per on a respect of whom a cert fector of fit a shart a succludable her exam end un twitter months of the last previous exam nation, also a the meant me he has completed his seratecult hyer and the qualif i med all pract tioner at a let recommation may remark the certificate for a f their period not exceed n₀ tail on n th or nay u pend or ravola tha and certificate.
 - (4) Aquabhed ned al pract t n r who refuses t grant a crif ato referred to n rule 13 B or
- (s) Every person who has been so if sel as it for a mount underground shall lefter he is unfloyed be provided by it on any set with a metal tolem. Such token hall be started in the self-shall be started of filters.
- (6) A record of every token so same I and the person to whom it was issued shall be man tuned in the office of the mine
- (7) Ce tificate prescribe I by clau of) of sect on 6 1 may be g anted by a m ne med cal officer who is declared to be a qual fed m i al just thoner
- ? For the existing forms 11 1 ° Fan II the accompany a revised forms A1 A ° E and F thall be substituted
 - 8 After form F the accompany ng forms G and H shall be ascreed

Miscellaneous-contd.

Statement No. 13-contd.

Register of work persons employed in mines (both on surface and underground) [sections 28(1) and 30(f) and (k) of the Indian Mines Act, 1923, as amended.] FORM A-1. (Role 11).

Name of owner-

Name of mine_

rest to which he is entitled. The days of 10 Intervals of rest if any, to which he is entitled. Ends A.M./ r.M. 6 Begins A.M./ P.M. တ Periods of work fixed for him. Ends A.M./ P.M. -Begins A.M./ P.M. 9 Nature of his employ-ment. rO Sex. 4 Age. ಣ Name of worker with father's name and caste. c4 Serial No.

Miscellaneous-contd.

Statement Na. 13-contd.

FORM A 2.

(Rote 11 C)

Requiering of persons working below ground in respect of all coal reseased other mines having under ground workings, to which provisions of section 23(s) of the Indian Mines Act, have been made applicable by a general or special order of the Local Covernment.

(Ferrons entering the mine shall be shown by $a \times in$ the column marked "In against the name) (Ferrons leaving the mine shall be shown by $a \times in$ the column marked "Out" against the name) (All entires shall be made in its)

Period of work commences at

For week	comm	neing			and e	Perso nding	d of #	ork en	ids at					ÎÑ
Sensi No of form A I	San	Sunday		day.	Tue	iday	Wed	ines y	The d	urs urs	Pro	lay	Satu	rday.
IA MIOI	Ę	Out	Ħ	Out	ដ	1 0	년	an O	Ä	ğ	.p.	ano Onte	я	ě
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											1		1	
											1	1	1	_

Total number of persons underground-

Total number of women underground-

Percentage of persons below ground who are women-

				_
ımended.]	The days of	which he is catitled.	10	
Act, 1923, as c	rest if any, is entitled.	Ends A.M./ r.M.	6	
Indian Mines	Intervals of rest if any, to which he is entitled.	Begins A.M./ P.M.	8	
and (k) of the	work fixed im.	Ends A.M./ P.M.	7	
td. td. s(1) and 30(f)	Periods of work fixed for him.	Begins A.M./ P.M.	9	
APPENDIX IV—contd. Miscellaneous—contd. Statement No. 13—contd. FORM A-1. (Rudellaneous—28()	3	his employ- ment.	29	
APPEND Miscella Statemer Statemer To and undergroo		Sex.	4	
(both on surface of mine		Age.	က	
APPENDIX IV—contd. Miscellaneous—contd. Statement No. 13—contd. FORM A-1. (Rule II). (Rule II). (Rule II). Name of work persons employed in mines (both on surface and underground) [sections 28(I) and 30(f) and (k) of the Indian Mines Act, 1923, as amended.] Name of work persons employed in mines (both on surface and underground) [sections 28(I) and 30(f) and (k) of the Indian Mines Act, 1923, as amended.]		Name of worker with father's name and caste.	61	,
Regist		Serial No.	1	

Miscellaneous-contd

Statement No. 13-could

FORM A 2

(Rule 11 C)

Regustering of persons working below ground an respect of all coal mines and other mines having under ground workings, to which pravisions of section 25(4) of the Indian Mines Act, have been made applicable by a general or special order of the Local Covernment

(Persons entering the mine shall be shown by a × in the column marked "In" against the name) (Persons leaving the mine shall be shown by a x in the column marked "Ont" against the name) (All entries shall be made in ink)

Period of work ends at

Period of work commences at

For week commencing				and e	nding								
Sun	day	Mon	day	Tue	day	Wed	ines y	Th	urs ay	Fne	day Saturd		rday
표	Out	념	Out	蝟	o ti	둼	Out	Į.	Out	In	t o	Д	Out
						ŀ							
ļ							ļ						
	Sun	Sunday	Sunday Mon	Sunday Monday	Sunday Monday Toes	Sunday Monday Toesday	Sunday Monday Toesday Wed	Sunday Monday Toesday Wednes	Sunday Monday Toesday Wednes day	Sunday Monday Toesday Wednes Thurs day day	Sunday Monday Toesday Wednes Thurs day Fri	Sunday Monday Toerday Wednes Thurs day Friday	Sunday Monday Toesday Wednes Thurs day Friday Satu

Total number of persons underground-

Total number of women underground-

Percentage of persons below ground who are women-

Miscellaneous-contd.

Statement No. 13-contd.

FORM E.

(Rule 11-B for mines with no relay system).

Trottee of commencement of	equired by section 23-B (1)			ervai ana ena	oj work as
Name of mine		••••			
Name of owner of min	0	••••			
It is hereby notified t	hat persons employed in		shall begin	their work,	take res

_	Kind of worker.	Beginning of work.	Commencement of rest interval.	End of rest interval.	End of work.
•					
	· ·				
•					-

APPENDIX IV-contil

Statement No. 13—contl

(HUIN HIR RIN WINTER IN REPORT A MERTIN OF MILLER)

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Taind Breat	Com mence- ment of rest interral	3/2	N N	N N		
	Heginning of relay	K X	7 7	7 2		
	I nd of relay	N N	2/2	N N		
NE IND BELAK	In los ret interral	2/2	7 2	N N		
	C mmerce mertifrat bteral	2 2	2 2	2/2		
	H b shk	2 2 4 1 1	77	a'a		
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Miscellaneous-contd.

Statement No. 13-contd.

FORM G.

Register of minor accidents in coal mines only. [Sections 20(2) and 30 (aa) of the Indian Mines Act and rule 11 of the Berar Regulation and Inspection of Mines Rules, 1924, as amended.]

Name of mine.....

Date of the entry.	Date of the accident.	Name of the person injured.	Nature of Nature of injury.		Nature of accident.	Duration of enforced absence from work.	Signature of manager.	
1	2	3	4	5	6	7	8	
"} <u>~</u>								
		٠					•	

Note.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

Miscellaneous-contd.

Statement No. 13 -concld.

	105/	I 1I
	[fices]	13 A]
	Certificate of 1	finess to work
1 Senal No		Date————
2 Date-		I herely certify that I have personally
3 Name-		examined (name)
	a pame	aon of daughter
5 Sex al	nd earte or religion.	- daughter
	ence	resident of-
7 Age.		
8. Phys	sical fitness	who is desirous of being employed in a mine
9 Dus	tinction of marks	and that his ago, as nearly as can be ascer
10 R	essons for-	fained from my examination, 15
<u>.</u>	(a) Refusal of certificate	years and that he is fit for amployment in a
,	(b) Certificate being revoked	mine His description marks are————————————————————————————————————
Let	t hand thumb impress on-	
1		Left

horz -Eract details of cause of phy

Initial of the qualified medical practitioner

Miscellaneous-contd.

Statement No. 13-contd.

FORM G.

Register of minor accidents in coal mines only. [Sections 20(2) and 30 (aa) of the Indian Mines Act and rule 11 of the Berar Regulation and Inspection of Mines Rules, 1924, as amended.]

Name of mine.....

Date of the entry.	Date of the accident.	Name of the person injured.	Nature of work.	Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of manager.
1	2	3	4	5	6	7	8
							•
		•					

Note.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

Miscellaneous-confd

Statement No. 13-concld.

FORM H

[Rule 13 A]

Certificate o	I piness to work
I Senal No	_ Serial No
2 Date.	I hereby certify that I have personally
3 \ame	examined (name)
4 Father a name	_
5 Sex and caste or religion.	daughter of
6 Residence	ca*te
7 Age	resident of
8 Physical fitness	who is desirous of being employed in a mine
9 Distinction of marks	and that his age as nearly as can be ascer-
10 Reasons for— (a) Refusal of certificate—	tained from my examination, 19
	years and that he is fit for employment in a
(b) Certificate being revoked	mine His description marks are
Left hand thumb impression.	Her
Initial of the qualified medical practitioner	Left hand thumb impression

Note -Exact details of cause of physical dis ability should be clearly stated

Signature of the qualitate medical prairie an

Miscellaneous-contd.

Statement No. 14.

NOTIFICATION.

15th July 1937.

No. 5800—1 M-5/1937-Com.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), read with sub-paragraph (2) of paragraph 8 of the India and Burma (Transitory Provision) Order, 1937, the Government of Orissa are pleased to direct that the following amendments shall be made to the rules for coal mines and the rules for mines other than coal mines, published with Bihar and Orissa Government, Notification No. 2608—VIIM-2-Com., dated the 8th September 1924, and which are in force in the areas transferred from the late Bihar and Orissa Province to the Prevince of Orissa:—

Amendments in the Rules for Coal Mines.

- I. In Chapter III of the rules for coal mines-
 - (a) For rule 9, the following rule shall be substituted :-
 - 9. The register of all persons employed in the mine shall be maintained, as required by sub-section (1) of section 28 of the Act, in the form shown in Schedule A. The register shall be kept at the office of the mine.
 - (b) For rule 9.A, the following rule shall be substituted :-
 - 9-A. The register required by sub-section (4) of section 28 of the Act shall be maintained in the form shown in Schedule F and all entries therein shall be made at the entrance or entrances to the mine and at the time when the person against whose name the entries are made entered or left the mine. The register shall be kept at the entrance of the mine.
 - (c) After rule 11, the following rule shall be inserted as rule 11-A:-
 - 11-A. The register of accidents referred to in sub-section (2) of section 20 of the Act shall be in the form shown in Schedule D.
- 2. After Chapter VI of the rules for coal mines, the following new Chapter VI-A shall be sorted and the rules in Chapter VII renumbered 30 to 34:-

CHAPTER VI-A.

Certificate of fitness for employment underground of persons who have not completed 17 years of age.

- 23. Before any person whe has net completed his seventeenth year is employed underground, the manager shall arrange to have him examined by a qualified medical practitioner and, if after examination the medical practitioner is of opinion that such person is fit for employment underground, he shall grant him a certificate in the Form in Schedule E.
- 24. Every certificate granted by a qualified medical practitioner shall be prepared by filling up the foil and counterfoil on both of which shall be impressed the left thumb mark of the person in whose name the certificate is granted.
- 25. The qualified medical practitioner shall, when satisfied as to the correctness of the entries made therein, sign the foil and initial the counterfoil, and shall deliver the foil to the manager for safe custody.
- 26. No certificate granted under rule 23 shall be valid for a period exceeding twelve months. Every person in respect of whom a certificate of fitness has been issued shall be re-examined within twelve months of the last previous examination unless in the meantime he has completed his seventeenth year and the qualified medical practitioner making such re-examination may renew the certificate for a further period not exceeding twelve months or may suspend or revoke the said certificate.

Miscellaneous-contd

Statement No. 14-coals.

CHAPTLE VI A-conti

- 27 A qualified medical practitioner who refers to grant's certificate referred to in rule 23 or the refund to grant a certificate referred to in rule 23 or the grant of the case of the case to the Chef case of the case of the case of the case of qualified medical practitioner and such decision shall be fast.
- 23 Every person who has been certified as fit for employment to be round shall before he is so employed be provided by the memory with a metal tolen, but he let a shall be starped with better "P" and numbered. The number shall be the same as that of the certificate of fitness.
- 29 A record of every token so issued and the person to whom it was issued shall be maintained in the office of the mine.
 - 30 In the rule for coal mines-
 - (a) For the existing Schedule A, the following Schedule shall be substituted -

SCHEDULE A.

(See Rale 2)

Repeter of employees

Name and easte of the employer.	Age.	Sex.	Nature of employment	Date of commencement	Pens wo	xls of rk.	Interrals for rest to which to each size is entitled.		Days of rest to which he is entitled.	which !-
				Date of ca	Le.	Ładı	Em D	Lade,	Days of fer	Relay to belence.
					A.M. F.K.	1.X.	7.¥,	1 W.		<u></u>
	•10							ļ		

[&]quot;In pames where work is exerced on by a system of relays

Miscellaneous -contd.

Statement No. 14-contd.

(b) For the existing Schedule C the following Schedule shall be substituted:— SCHEDULE C.

(See RULE 9-B.)

Notice of commencement and end of work.

Name	ο£	mine	
# 4444TT			1

Name of owner of mine.....

It is hereby notified that persons employed in this mine shall begin and end their periods of work between the hours set out below:—

		lst	relay.			2nd rela	ry, if an	y.	3rd relay, if any.			
Kind of worker.		od of ork.	Rest interval.		Period of work.		Rest interval.		Period of work.		Rest interval.	
Worker.	Be- gins.	Ends.	Be- gins.	Ends.	Be- gins.	Ends.	Be- gins.	Ends.	Be- gins.	Ends.	Be- gins.	Ends.
	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M.	A.M. P.M.	A.M. P.M.

Note.—The words and letters not wanted should be scored out.

In the case of underground workers, the entry in the rest interval column will be nil.

(c) After Schedule C the following Schedules shall be added:-

SCHEDULE D.

(See Rule 11-A.)

Register of minor Accidents.

Date of entry.	Date of accident.	Name of persons injured.	Nature of work.	'Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of Manager. 8	

Miscellaneous-contd.

Statement No. 14-contd.

SOHEDULE F.

(See Rule 9-A.)

Register of persons employed underground.

(Persons entering the mine shall be shown by a X in the column marked "In" against the name.)

(Persons leaving the mine shall be shown by a X in the column marked "Out" against the name.)
(All entries shall be made in ink.)

Period of work commences at

p.m.

Period of work ends at

p.m.

For week commencing

and ending

Name of person.		Nature of	Sun- day.		Mon- day.		Tues- day.		Wednes- day.		Thurs-day,		Friday.		Satur- day.	
	Sex.	work.	Fi.	Out.	In.	Out.	In.	Out.	In.	Out.	In.	Out.	Н	Out.	ŗi.	Out.
•	`															

Total number of persons underground-

Total number of women underground-

Percentage of persons below ground who are women-

Signature of Register-keeper.

APPOLIT --- -

Melec--

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AMENDMENTS IN THE PTER TO SEE

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22 Every person why has been sens or as employed be provided by the manner of the letter op and numbered. The number of

23. A record of every taken to merce a fact that the office of the merce

Miscellaneous-contd.

Statement No. 14-contd.

- 6. In the rules for mines other than coal mines-
 - (a) For the existing Schedule A the following shall be substituted:

SCHEDULE A.

(See RULE 9.)

Register of employees.

Name and cast of the employee.	Ago. Sox. Somploym	Nature of employment.	Date of commencement of employment.	Periods of work.		Intervals for rest to which he is entitled		Date of rest to which ho is entitled.	which he	
			Date of con	Be- gins.	Ends.	Be- gins.	Ends,	Date of res is entitled	Relay* to which belongs.	
					P.M.	A.M. P.M.	A.M. P.M.	P.M.		
,										
			•	•						
				-: - I				-		

^{*}In mines where work is carried on by a system of relays.

Miscellaneous-contd.

Statement No. 14-contd.

(b) For the existing Schedule C the following Schedule shall be substituted -ECHEDULE C

(See RULE O.A.)

Netice of commencement and end of work

Name of mine

It is kereby notified that persons employed in this mine shall begin and end their periods of work

out below	mployed in the				
let rela-	and relat	une shall begu	and end the		
Kind of Period of P	2nd relay		their	periods of work	
worker work Rest interval.	Period at 1	, u any	3rd relay,		
Bo-	Work	Rest interval	Period of		
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Note -The words and letters not wanted should be In the case of underground workers, the entry in th

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APPENDIX IV-contd.

Miscellaneous-contd.

Statement No. 14-contd.

(c) After Schedule C the following Schedule shall be inserted:-

SCHEDULE D.

(Sec Rule 17.)

Form of certificate of fitness for employment underground in a mine.

Counterfoil of certificate of fitness.

Certificate of fitness.

Serial No	Serial No
Date	Date
2. Name	This certificate unless renewed shall not be valid
	after*
3. Father's name	I hereby certify that I have personally examined
	(name)
4. Sex and caste or religion	
•	son/daughter of
*************************************	(easte, etc.)
	residing at
5. Residence	who is desirous of being employed in a mine and
	that his/her age as nearly as can be ascertained
6. Age certified	from my examination isYears and that
	he/she is fit for employment underground in a
7. Distinctive marks	mine as an adult. His/Her descriptive marks
	are
Left thumb impression.	Left thumb impression.

Qualified Medical Practitioner.	Qualified Medical Practitioner.
	Renewed till
	Date
	Signature of Qualified Medical Practitioner.

^{*}Date twelve months after date of issue to be filled in by the Medical Practitioner.

Miscellaneous-contd.

Statement No. 15.

ACT NO. XXIX OF 1937.

PASSED BY THE INDIAN LEGISLATURE | (Received the assent of the Governor General on the 3rd December, 1937.)

An Act further to amend the Indian Mines Act, 1923, for certain purposes.

1923 WHEREAG It is expedient further to amend the Indian Mines Act, 1923, for the purposes beroin after appearing, It is hereby enseted as follows -

- 1 Short fulls -(1) This Act may be called the Indian Mines (Amendment) Act, 1937
- 2 Amendment of Section 2, Act XI of 1936 -In section 2 of the Indian Mines (Amendment) Act, 1930,-
 - (a) in sub-section (I), for the words "the following sub-section shall be deemed to he inserted" the words "the following sub-section shell be inserted "shall be substituted, and
 - (b) suh section (2) shall be omitted

1936

1923

- 3 Amendment of section 3, Act IV of 1923 —In section 9 of the Indian Mines Act, 1923 (herein after referred to as the said Act).—
 - (a) to sub section (1) the following words shall be added, namely -
 - " and shall not be disclosed to any person other than a Magistrate or an official superior or the owner, agent or manager of the mine concerned, unless the Chief Inspector or the Inspector considers disclosure necessary to ensure the safety of any person".
 - (b) in and section (2), for the words "to any one, other than a Magnetrate or an officer to whom he is subordinate" the following words shall be substituted, namely
 - "contrary to the provisions of anh section (1) .
 - (c) in snb section (3), for the words following the words " under this section the following words shall be substituted, namely -
 - "except with the previous sanction of the Central Government"
- 4 Amendment of Section 304, Act IV of 1923—In section 30 A of the said Act, for the word "regulations" the word "rules" shall be substituted, and for clauses (a), (b), (c) and (d) the following clauses shall be substituted namely—
 - (a) requiring the establishment of central resone stations for groups of specified mines or for all mines in a specified area, and prescribing bow and by whom such stations shall be established.
 - (b) providing for the management of central rescue stations and regulating the constitution
 - (c) prescribing the position, equipment, control, maintenance and functions of central rescue stations .
 - (d) providing for the levy and collection of a duty of exense (at a rate not exceeding aix pies per ton) on coke and cost produced in and despatched from mines specified mode clause (d) in any group or included under clause (d) in any specified area the without on of the proceeds thereof for the creation of a central rescue station fund for such group or area and the administation of such funds,
 - (e) providing for the formstion, training composition, and duties of rescue higades, and (f) providing generally for the conduct of rescue work in immes "
- 5 Amendment of section 31, Act IV of 1923—In sub section (I) of section 31 of the said Act, for the word and figure "and 30" the figures and word "30 and 30A" shall be substituted

Miscellaneous-contd.

Statement No. 16.

NOTIFICATION.

Dhanbad, the 15th December 1937.

No. P.-2.—In exercise of the powers conferred by Regulation 2(ec) and Regulation 116-A (b) of the Indian Coal Mines Regulations, as published under Notification No. M.-1077, dated the 29th August 1936, and in supersession of Notification No. P.-1, dated Dhanbad, the 29th August 1936, the undernoted list of "Permitted" Explosives is hereby published for general information:—

List of "Permitted" Explosives.

Name of Explosive.		Place of manufacture.	Permissible maximum charge.
Monobel No. 1 .	. {	Ardeer, Ayrshire, Great Britain, and Modderfontein, South Africa.	28 ounces.
A. 2 Monobel	. {	Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia.	28 ounces.
Polar Dynobel No. 2		Ardeer, Ayrshire, Great Britain.	28 ounces
Samsonite No. 3	. {	Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia.	28 ounces.
Stonobel	. {	Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia.	28 ounces.
Roburite No. 4		Gathurst, Wigan, Great Britain.	28 ounces.
A. 1 Rounkol		Ardeer, Ayrshire, Great Britain.	1S ounces

Miscellaneous-contd,

Statement No. 16-contd

Provided (a) that each castridge of explosive shall be marked with the outline of a crown with the letter "P" in the centre and (b) that the explosive when used in any mine or place in which 'permitted' "explosives are required to be used by any Regulation or order interest in Indian Mines Act, shall be fired by one of the following types of approved shot firing apparatus —

List of shot firing apparatus

Manufactured by	Name of apparatus
Magneto Exploders	
British Insulated Cables, Limited, Prescot, Laucasbire	Relaby (1932) L T
Ditto	Helsby (1933) L T
John Davis & Son (Derby) Limited, All Saints' Works,	Davis No 15 X (1932) L 1
General Electric Co. Ltd., Magnet House, Kingsway, London, W C 2	Magnet (1932) L T
Battery Exploders	
John Davis & Son (Derby) Limited, All Saints' Works, Derby	Davis (1932) L I
Ceneral Electric Co., Ltd., Magnet House, Kangsway, London, W. C 2	G E C (1933) L 1
Heyes & Co, Ltd. Wigan	Watn No 4 L I

Statement No. 17.

Circular No. 1.

Dhanbad, the 6th January 1937

Ггот

D Pennian, Esq., D Sc., FRSE, Chief Inspector of Mines in India

To

The Owners, Agent or Manager.

Sır,

1

I have the honour to invite reference to my Circular No. 10 of 1936, dated 25th November 1936, wherein I pointed out the necessity of using certified and totally enclosed financirof apparatus in safety lamp mines in situations which are not man intale arrays and also near depillating areas.

Miscelleneous-contd.

Statement No. 16.

NOTIFICATION.

Dhanbad, the 15th December 1937.

No. P.-2.—In exercise of the powers conferred by Regulation 2(cc) and Regulation 116-A (b) of the Indian Coal Mines Regulations, as published under Notification No. M.-1077, dated the 29th August 1936, and in supersession of Notification No. P.-1, dated Dhanbad, the 29th August 1936, the undernoted list of "Permitted" Explosives is hereby published for general information:—

List of "Permitted" Explosives.

Name of Exp	olosi	ve.		Place of manufacture.	Permissible maximum charge.
Monobel No. 1	•	•	{	Ardeer, Ayrshire, Great Britain, and Modderfontein, South Africa.	28 ounces.
A. 2 Monobel .	•	•	-	Ardeer, Ayrshire, Great Britain, and Decrpark, Melbourne, Australia.	28 ouuces.
Polar Dynobel No.	2		•	Ardeer, Ayrshire, Great Britain.	28 ounces.
Samsonite No. 3	¢		{	Ardeer, Ayrshire, Great Britain, and Decrpark, Melbourne, Australia.	28 ounces.
Stonobel .			{	Ardeer, Ayrahire, Great Britain, and Deerpark, Melbourue, Australia.	28 ounces.
Roburite No. 4			•	Gathurst, Wigan, Great Britain.	28 ounces
A. 1 Rounkol .			•	Ardeer, Ayrshire, Great Britain.	18 ounces

Miscellaneous-contd.

Statement No 16-contd

f a crown with place in which Indian Mines

List of slot firing apparatus

Vanufactured by	Name of apparatus		
Magreto Exploders			
Br tish Insulated Cables Limited Prescot, Lancashire	Helsby (1932) L T		
Ditto	Helsby (1933) L I		
John Davis & Son (Derby) I mited, All Saints Works, Derby	Davis No 15 X /1932) L 1		
General Electric Co., Ltd., Magnet House Kingsway, London, W O 2	Magnet (193°) I I		
Battery Exploders			
John Davis & Son (Derby) Limited All Saints Works Derby	Davis (133.) L i		
General Electric Co., Ltd., Magnet House Lingsway, London W C 2	G E C (1933) L T		
Heyes & Co. Ltd., Wigan	W san No 4 L T		

Statement No 17

Circular No 1

Dhanbad, the 6th January 1957

From

D Penman, Faq D Sc, FRSE, Chief Inspector of Mines in India.

To

The O vners Agent or Manager

I have the honour to unvite reference to my Gerenlar Ao 10 of 1928 dated 28th. November 1936 wherein I pointed out the recessity of using certified and totally emboard famous of apparatus in safety lamp m uses in situations which are not main intakes receive and also near depillaring areas Ьıг

Miscellaneous-contd,

Statement No 15-cont.

a crown with place in which Indian Mines

Lust of shot firing apparatus

Manufactured by	Name of apparatus		
Magneto Exploders			
British Insulated Cables, Lumited, Prescot Lancashire	Helaby (1932) L T		
Ditto	Helsby (1933) L T		
John Davis & Son (Derby) Limited, Aff Saints Works, Delby	Davis No 15 A /1932) L 1		
Goneral Electric Co., Ltd., Magnet House, Languay, London, W C 2	Magnet (1932) L F		
Battery Lxplodere			
John Davis & Son (Derby) Limited, All Saints Works, Derby	Davis (1932) L 7		
General Electric Co., Ltd., Magnet House, Kungsway, London, W C 2	G E C (1933) L 1		
Heyes & Co , Ltd , Wigan	Wate No 4 L T		

Statement No. 17.

Circular No. 1.

Dhanbad, the 6th January 1937.

From

D Penman, Esq, D Sc, 1 RSE, Chief Inspector of Mines in India

The Owners, Agent or Manager

To Sır,

I have the honour to invite reference to my Circular No. 10 of 1936 dated 25th November 1936. wherein I pointed out the necessity of using certified and totally enclosed flameproof apparatus in safety lamp mines in actuations which are not main intale arreads and also near depillating areas

Miscellaneous—contd.

Statement No. 17-contd.

As there remains a serious risk of a sudden emission of firedamp in dangerous quantities from goaves in depillaring areas, it is essential for safety that all electrical apparatus which may be situated oven in main intake airways within a distance of 700 feet from the nearest depillaring areas or the nearest goaf edges should also be of the certified and totally enclosed flame proof types, unless the goaves are effectively packed.

All signalling instruments connected to bare signalling wires which may extend to above situations should be of the types approved by the British Mines Department and tested for intrinsic safety.

I shall be glad if you would kindly arrange to give effect to the above matters as early as possible.

I have the honour to be, Sir, Your most obedient servant,

D. PENMAN,
Chief Inspector of Mines in India.

Statement No. 18.

Circular No. 2 of 1937.

Dhanbad, the 12th January 1937.

 T_0

The Owner, Agents or Manager.

Apparatus required for sampling and analysing coal-dust samples.

- 1. Five or six dezen small tins about 4" tall and 2\frac{1}" diameter, with wellfitting lids (empty bealth-salt tins are quite suitable). The tins must be dried thoroughly in the water-oven, if necessary, before use.
 - 2. One small hand-brush.
 - 3. One tray about 15" square, with one edge flat, as in the case of an ordinary dust-pan.
 - 1. One easo about 16" by 22" by 5" in which to carry the samples.
 - It is desirable that the case should be divided into compartments by cardboard partitions as in an egg-box. About three dozen samples can then be taken on one round.
- 5. One chemical balance in case to weigh 100 grams to one-tenth of a nulligram with a box of weights for same.
 - 6. Two desiccators (Schieblers) 6 inches to 8 inche, in diameter.
 - 7. Two pounds of concentrated sulphuric acid (for desiceators and the balance case).
 - S. Two lamp gauzes for use as sieves.

Miscellaneous—contd

Statement No. 18-contd

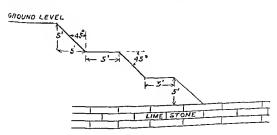
- 9 One sieve of 200 meshes to the lineal inch, with case and top, 5 inches diameter, for sievintest on the stone dust
 - 10 One pair of crucible tongs 8 inches long of iron or copper
 - 11. Four dozen crucibles, best porcelam with hids (1 meh high, 11 inches diameter)
 - 12 Six watch glasses (3 inches diameter)
 - Also the following according as heating by gas or electricity is to be resorted to -13 If heating by gas -
 - (a) One ordinary water oven 10 inches by 10 inches by 10 inches
 - (b) One dozen bursen Lurners, 6 mehes by is meh diameter
 - - (d) One dozen I proces I such diameter
 - (e) One dozen screw chps, I meh with hingo
 - (f) Ten yards best rubber tubing for gas piping 3 inch diameter (2) One dozen pipe clay triangles-medium size
 - (A) Six tripods
 - 14 If heating by electricity -
 - (a) One electrically heated water-oven (with fittings) inside dimensions 10 inches by 10 mehes by 10 mehes (b) One electrically heated furnace (with fittings) capable of attaining a temperature of
 - 1,000°O -inside dimensions 12 inches by 5 inches by 31 inches

D PENMAN. Chief Inspector of Mines in India.

Statement No 19

Instructions regarding remotal of overburden, sloping and steping of sides of Limestone quartes

- 1 All overburden shall be removed down to the top bed of limestone and clear of the edge of the binestone for a distance of not less than 10 feet and constantly ma ninned at that distance or a greater distance
- 2 Where the thickness of the overburden exceeds 6 feets the sides shall be stepped as in the sketch below



Miscellaneous-contd.

Statement No. 19-confd.

Provided that the steps may be made at intervals of less than 5 feet in the same proportion as is shown in the sketch:

Provided also that foot-paths for the use of work-persons may be made where necessary so long as the sides of such foot-paths are sloped and stepped in the manner specified.

- 3. No loose pieces of stone should be left lying within 5 feet of the edge of the quarry at the ground level or on any of the steps or benches.
- 4. Where the limestone is removed in benches no such bench shall exceed 5 feet in height above the level of the quarry in the vicinity of the bench.
- 5. Where owing to the specially soft nature of the ground precautions exceeding those stated are necessary, they shall be taken by the manager.

D. PENMAN,

Chief Inspector of Mines in India.

Circular No. 3.

Copy forwarded to the	Dhanbad,			
Copy 101 // Maded 20 Cale				
for intormation, with the request that the above inst			•	

Chief Inspector of Mines in India.

Statement No. 20.

Circular No. 4.

Dhanbad, the 21st April 1937.

The attention of owners, Agents' and Managers of all mics and copper mines is invited to the register required under Section 28(1) and Rule 9. It is important that a correct record should be maintained at any moment of the names of overy person working below-ground in a mine. Such records should be maintained in the sample form of register as appended until such time as an amended form of register is prescribed.

D. PENMAN,

Chief Inspector of Mines in India,

APPENDIX IV—conta Miscellapsous-contd

Spriement No. 29-confd

I equater of sevel persons emy toyed underground Name of mine.

during the Namber of 2 ₹ 2=0 HAYUR ΨĮ = 120 Ξ PRIL AS £ 720 THURS 2 100 WELLY ES 2 TUESDAY 750 MOTORY Names of Owners. al 750 ACREAN ıv Nature ork Total number of jers no employed Lather a name, or in the case of a married window husband a name P.O. 86

Miscellaneous-conid.

Statement No. 21.

Circular No. 5.

Dhanbad, the 1st June 1937.

Ιo

The Owner. Agent of Manager

.....

Sir, Gentlemen.

ghbhum has drawn my attention to an outbreak of Cholera in the District of ... in the Dhalbhum Sub-Division. He fears that it may spread rapidly un less preventive steps are taken.

In these encumstances I shall be pleased if you will kindly take all such precautionary measures in consultation and in co-operation with the incducal Department of the district as may be necessary.

I have the honour to be,

Sir,

Your most obedient servant.

W. KIRBY,

Chief Inspector of Mines in India (Offg.).

Statement No. 22.

Circular No. 6.

Dhanbad, the 29th June 1937.

The attention of Owner, Agents and Managers of all coal mines is drawn to Notifications No. M-1055, dated the 1st February 1937, and No M-1055, dated the 17th June 1937, issued by the Government of India, Department of Industries and Labour, regarding the regulations for prohibiting the employment of women underground in mines.

It should be noted that the effect of the latter Notification is to suspend only Regulation 1 of the regulations laid down in Notification, dated the 1st February 1937. Regulations 3 and 1 of that notification remain in force unaltered. They read as follows.—

"Regulation 1.—No woman shall be permitted to enter or remain in the nider fround workings of any mine unless she is in possession of a pass granted by the manager of the mine

Miscellancous-contd

Statement No. 22-contd

Regulation 4 —Before a woman enters a mine with a pass granted under Regulation 3 her name, address and occupation shall be entered in a regular maintained for this purpose at the surface of the mine, and her exit from the mine shall also be recorded in that register.

Provided that in any mine to which sub-sect in (4) of Section 28 of the Indian Mines. Act, 1923 (IV of 1923), has been declared to be applicable the entries required by this regulation may be made in the righter presented by that sub-section.

W KIRBY
Chief Inspector of Mines in India (Off.)

Statement No 23

Circular No. 7

Dhanbad, the 12th July 1937.

The attention of Owners, Agents and Managers of all coal mines is drawn to the recommendation made by the Ceal Mining Committee on paragraph 111 of their Report that all short firers should be paid a rigular mage and should not be allowed to have any manageal interest in coal getting

It is requested that all will co operate in giving effect to the recommendation as a safety measure

W KIRBY,

Chief Inspector of Mines in India (Offy)